AMERICAN ANNALS

OF THE

Deaf and Dumb,

EDITED BY

EDWARD A. FAY,

UNDER THE DIRECTION OF

E. M. GALLAUDET, OF WASHINGTON, E. C. STONE, OF CONNECTICUT, I. L. PEET, OF NEW YORK, W. J. PALMER, OF ONTARIO, AND THOMAS MACINTIRE, OF INDIANA,

Executive Committee of the Convention.

VOL. XXIII, No. 3.

JULY, 1878.

WASHINGTON, D. C.

PRINTED BY GIBSON BROTHERS.

The following Works, Published or for Sale by

BAKER, PRATT & CO.

Nos. 142 and 144 Grand St., New York City,

Will be sent by mail, on receipt of price with ten per cent. added for postage.

PEET'S COURSE OF INSTRUCTION

FOR THE

DEAF AND DUMB.

ELEMENTARY LESSONS, - - by Harvey P. Peet, LL. D.

Pp. 308. *Price* 75 *cents.*

This work has been used in American and foreign institutions for the deaf and dumb for upwards of thirty years, and has won a reputation which cannot be lightly regarded.

SCRIPTURE LESSONS, - - - by Harvey P. Peet, LL. D.

Pp. 96. *Price* 30 *cents.*

Beautifully illustrated. Over 100,000 copies have been sold. This is the best compendium of Scripture history embraced in the same number of pages.

COURSE OF INSTRUCTION, Part III.

by Harvey P. Peet, LL. D.

Fully Illustrated. Pp. 252. *Price* $1.00.

Containing a development of the verb; illustrations of idioms; lessons on the different periods of human life; natural history of animals, and a description of each month in the year.

This is one of the best reading books that has ever been prepared for deaf-mutes, and furnishes an excellent practical method of making them familiar with pure, simple, idiomatic English. It is well adapted, also, for the instruction of hearing children.

HISTORY OF THE UNITED STATES OF AMERICA,

by Harvey P. Peet, LL. D.

Pp. 425. *Price* $1.50.

Extending from the discovery of the continent to the close of President Lincoln's administration. A work of great accuracy, written in a pure, idiomatic style, and pronounced by good judges to be the best and most instructive history of this country that has ever been condensed within the same compass.

MANUAL OF CHEMISTRY, - - - by Dudley Peet, M. D.

Pp. 180. *Price* 75 *cents.*

The principles of the science are unfolded in a manner peculiarly felicitous. The style is very simple and easily comprehended. A capital introduction to a course of lessons in physical science.

MANUAL OF VEGETABLE PHYSIOLOGY,

by Isaac Lewis Peet, LL. D.

Pp. 12. *Price* 25 *cents.*

A short, comprehensive, and lucid exposition of the subject, adapted to learners of all conditions.

(Continued — *page* 3 *of cover.*)

AMERICAN ANNALS

OF THE

DEAF AND DUMB.

VOL. XXIII., NO. 3.

JULY, 1878.

DRAWING DESIGNS.

BY JAMES H. LOGAN, M. A., TURTLE CREEK, PA.

THE drawing of designs may be made an excellent means of training the mental faculties of deaf-mutes. Here reference is had to its use in the cultivation of fine taste and the calling into activity of the constructive and inventive faculties. The judgment is also called into active exercise. The drawing of designs may seem to be a difficult matter; but, really, it is not so difficult as at first sight appears. After a few weeks' practice, children can learn to draw very tasteful and beautiful designs. Nor is it necessary to receive instruction from a skilled artist, though whenever practicable this is desirable. If the teacher only has sufficient taste to detect and point out what is unpleasant or faulty in the design, the rest may safely be left to the child. At first, it will be necessary to give the child some designs to copy; but after he has gained some facility in handling the pencil he may be left to his own resources. It is better that he should be allowed to exercise his ingenuity in constructing original designs for himself instead of merely gaining skill in copying the designs of others. The habit of independent effort thus fostered is of great value.

The method of drawing designs to which attention is called in this paper is a part of Froebel's Kindergarten System, and, so far as used by the writer, has succeeded admirably. Indeed, the results attained have been to all a matter of surprise. Nearly all the pupils of our Institution have been exercised in

drawing designs by this method, and it is with them universally popular. A full description of the method will be found in the "*Arbeitschule*," by Fr. Seidel und Fr. Schmidt, "*Das Netz-zeichnen*, I *und* II *Abtheilungen*." Part I is on figures composed of straight lines only, and Part II on figures composed of curved lines. The work is inexpensive, and is published by Hermann Böhlau, Weimar. The other parts of the series belonging to the above work will undoubtedly prove very useful to all anxious to develop the mental faculties of children, and are well worthy of a careful examination by the profession. The two parts of the series to which attention is here called will be very useful even to those unable to read the text, for the plates are very suggestive.

There is no expense of any account to be incurred in carrying out the above plan of drawing designs. All that is necessary is to get the two parts of the work referred to, and to have slates ruled into squares, the lines forming them to be about a quarter of an inch apart. These slates should be used for constructing the designs. When a very good design is made it is always desirable to preserve it in a permanent form. For this purpose it may be copied on paper ruled in squares. This ruling can be done at any printing office where there is a ruling machine. The lines on the paper should be in faint blue. The paper will cost very little more per ream than ordinary letter-paper. It can be used in single sheets or bound in books, as desired.

In order to rule the slates a ruling-machine for the purpose must be constructed, and then a few boys can prepare all the slates wanted for the school. Pine wood, screws, and a table knife with the end broken off so as to form an angular point, are all that is needed for the machine. The one devised at our Institution consists of a board 19 by 30 inches. Strips of wood a little thicker than the thickness of a slate-frame are screwed along each of the longer sides of the board. At right angles to these is a cross-bar, 1 inch thick and $1\frac{1}{2}$ inches high. The bar is fastened by a screw at each end. To one side of this bar is screwed a strip of wood of the same height, and $\frac{1}{4}$ inch thick. At the ends where the screws fasten the strip, thin pieces of wood are placed between it and the bar, so that a slit is formed just wide enough to allow the knife to glide in easily. One of the strips along the longest side of the board is carefully marked,

on the side next the narrow strip of the cross-bar, into spaces of ¼ inch. A sharp knife is used in making the divisions. The strip on which this scale is cut is bevelled, and the widest side is uppermost. Thus a V-shaped recess is formed, in which the edge of the slate-frame is pushed while the ruling is being done. This recess is necessary, because the edges of slate-frames are rounded. A fine mark is now made on a slate-frame, and brought exactly opposite a division of the fixed scale above referred to. The side of the slate is pressed evenly into the recess; the knife is inserted in the slit and drawn towards the operator. The slate is pushed forward a little, until the fine mark is brought opposite the next division of the scale, and another line ruled. The repetition of this operation gives a series of parallel lines, all accurately spaced. Another side of the slate is now brought against the recess, and a series of lines is ruled at right angles to the first set, thus forming squares. The slit in the cross-bar prevents the knife from slipping, so that it is impossible to rule a crooked line. The master of the cabinet-shop at any institution will know how to construct an effective ruling-machine on this or some other plan.

Drawing designs on these ruled slates is an exercise so full of pleasure and profit to the younger children, as well as to the older pupils, that it is well worthy of being introduced everywhere. The small expense of an extra slate, and even of copy-books and pencils, would be repaid a hundred times over by the diversion into useful channels of intellectual activity, usually finding vent in mischief for want of other employment. The teacher should always examine the work of the pupils, and correct any errors. At first, the tendency of children is to introduce too much into a design, and it often happens that a bad design is changed into a good one by the mere rubbing out of superfluous lines. It is always well for teachers and others to examine, and commend whatever is well done. It is surprising to note how great an effect such encouragement has on children.

Practical application can easily be made of the designs thus produced. Some designs for borders could be used in embroidery, and some could be cut out in black paper, and when placed on a white back-ground, with a photograph in the centre, would make very attractive borders. Others could be cut out in various fancy woods with a scroll-saw, and would give fine

picture-frames. Some of the designs would make excellent patterns for carpets or oil-cloths, while others would do for tiles.

The variety and number of designs formed of straight lines alone, which may be constructed on the ruled slates, is infinite. Curved lines, used either alone or in combination with straight lines, add another element of variety. Again, some of the designs can be varied by having the parts differently shaded or colored. These would form very good patterns for tiles. Using colors is an occupation of which almost all children are exceedingly fond, and which can here be turned to a very useful purpose. The applications which can be made of this method of drawing designs are very far from having been exhausted. It is hoped that this short article will prove sufficient to induce others to make use of this valuable method in instruction, and that further contributions from those so using it will add more variety and value to our knowledge of the subject.

[With the foregoing article Mr. Logan sends for our inspection several original patterns, designed and executed by pupils of the Western Pennsylvania Institution. They evince good taste, a high degree of ingenuity, and a skilful use of the pencil.—ED. ANNALS.]

CONSANGUINEOUS MARRIAGES.

BY ALFRED HENRY HUTH, LONDON, ENG.

[MR. HUTH has been mentioned in a previous number of the *Annals* (vol. xxi, page 205) as an able and candid advocate of the harmlessness of consanguineous marriages. The *Westminster Review* for October, 1877, has an interesting article from him on this subject, chiefly in connection with a review of Mr. Darwin's work, "The Cross and Self-Fertilization of Plants." We make such extracts as are specially adapted to the character of this periodical.—ED. ANNALS.]

There are three classes of direct proof that consanguineous marriages are harmless to the offspring:

1. Observations on individual cases.
2. Statistical observations on large numbers.
3. Observations on isolated communities.

Of the first class we need say nothing beyond the warning that a case of consanguineous marriage which seems to show a harmful result on the offspring is no proof whatever that consanguineous marriages are harmful, because the harm may be caused by ordinary inheritance, just as in families where the

parents are not related. On the other hand, if consanguineous marriage is a cause of harm in and by itself, and we find very many cases where the results do not bear out this view, we cannot believe that it is either a very dangerous or constant cause.

It is a remarkable fact that, though immense labor and pains have been bestowed by statisticians and physicians on observations concerning these marriages, they seem to have been unaware that, for such observations to be of any use, it is of the utmost importance first to find out the proportion that one kind of marriage bears to the other. To say that 1.4 per cent. of the deaf-mutes are born from marriages between near kin conveys no meaning unless we know whether the proportion of consanguineous marriages to non-consanguineous marriages also stands at 1.4 per cent., or whether it is greater, or whether it is less. Guesses and estimates can only mislead, and, while the point is still doubtful, all observations are unripe for deduction.

To Mr. George Darwin belongs the honor of having by a method, or, rather, series of methods, as ingenious as they were laborious, ascertained with some degree of accuracy the proportion that marriages between first cousins bear to others. Wishing to ascertain whether consanguineous marriage was really as harmful as it was generally considered to be, he was at once confronted with the fact that there was no basis to start from. But, unlike some of his predecessors, he was not satisfied with a rough estimate, and being gifted with a clear sight and fertility of resource, he accomplished what neither physicians nor statisticians, nor even governments, have hitherto been able to do. To describe or criticise these methods would take up too much of our space. Let it suffice that his results, although, of course, to some extent conjectural, are beyond comparison safer than the wild guesses of former writers on the subject. The proportions he gets are that marriages between first cousins, among all classes, are 1.5 per cent. in London, 2 per cent. in urban districts, and 2.25 per cent. in rural districts. While, if we take the different classes, marriages between first cousins are in the proportion of 3.5 per cent. of all marriages in the middle and upper classes and landed gentry, and 4.5 among the aristocracy. Having got these data, he applies them to statistics obtained from various English and Welsh lunatic and idiot asylums; and the results, from somewhat imperfect re-

turns, show that, on a total of 4,308 patients who could answer, 149 or 142 were the children of first cousins, or 3.45 or 3.29 per cent. If only the most trustworthy returns are taken, on a total of 2,301, 92 or 93 were born from first cousins, or, as nearly as possible, 4 per cent.

It is probable, however, that the returns are even more favorable than this, for it is not enough to state merely the number of patients born from first cousins; we want also to know the number of families represented. It is probable that a far greater proportion of non-consanguineous marriages are affected than consanguineous, because where the parents are relatives there may be some tendency to an intensification of disease, and, consequently, each *affected* family among the consanguineous marriages may produce more deaf-mutes than the others, while a greater proportion of consanguineous marriages may be free from deaf-mutism than the non-consanguineous. And we find this supposition is confirmed by the Irish census reports. Taking the average of the last three census returns, we find that every deaf-mute of non-consanguineous origin represents one family, while one and a half deaf-mutes of consanguineous origin go to every family represented; and the proportion would be greater were we only to take first cousins. Now let us take an imaginary case. Say that 10,000 marriages produce 100 deaf-mutes. Of these 10,000 marriages, say 4 per cent., or 400, are between first cousins, and of the 100 deaf-mutes, say that 4, or 4 per cent., are born from marriages between first cousins. Now, since 1.5 deaf-mutes from first-cousin marriages go to a family, these four deaf-mutes represent 2.7 families, ($1.5 \times 2.7 = 4$,) while the 96 remaining deaf-mutes represent 96 families. Hence we have (10,000—400, or) 9,600 non-consanguineous marriages, of which 96, or 1 per cent., turn out harmful to the offspring; while we have only 2.7 out of 400 marriages between first cousins turning out harmful to the offspring, or 0.6 per cent. only.

Applying this to Mr. G. H. Darwin's returns we have a total of 2,301 deaf-mutes, of which 93 were born from marriages between first cousins, and represent ($\frac{93}{1.5}$ =) 62 families, while the remaining (2,301 — 93 =) 2,208 deaf-mutes represent 2,208 families. On a total, then, of (2,208 + 62 =) 2,270 families represented, only 62, or 2.7 per cent., proved harmful to the offspring. That is, there is less probability of a marriage between first

cousins producing a deaf-mute than a marriage between persons who are not related by nearly half per cent., even though we take the proportion of first-cousin marriages to others as low as 3 per cent.

We must, of course, be careful not to deduce too much from these figures, which are too small to settle the question at all satisfactorily. At the same time, they are valuable as an indication; for though we have other statistics on the same subject elsewhere, we cannot apply them, since we do not know the proportion of all consanguineous marriages to other marriages. Whatever Mr. G. H. Darwin's inquiries may be worth, as far as they go, (and they were extended to deaf-mutism, sterility, low vitality, and superior mental and physical power,) they show that at least there is no danger from marriages between first cousins. Thus, Mr. G. H. Darwin obtained information concerning 366 families who had furnished deaf-mutes to asylums, of which eight were unions between first cousins, or barely 2.2 per cent. Again, by counting the children of cousins in Burke's "Landed Gentry and Peerage," he found that not only were marriages between first cousins more fertile, but the children of cousins, even if they contracted a non-consanguineous marriage, were also more fertile than the average. If we put the average number of children per non-consanguineous marriage at 2.2, that where one parent is the offspring of cousins will be 2.3, and where the marriage is between cousins the average will be 2.4. Mr. G. H. Darwin thinks that this slight preponderance in favor of consanguineous marriage may be due to accident, since much of his data is founded on estimate; but we think he is wrong here, and undervalues the accuracy of his results. According to Oesterlen, 20 per cent. of all marriages in Great Britain were barren in the year 1851; Simpson found 11.7 marriages in Great Britain were barren; Dr. West found the average about the same; and Dr. Duncan puts it at 15 per cent. Taking a low estimate from the last three, we have 12.8 per cent. as the average of sterility. As for the prolificness of marriages in Scotland, where the average stands very high, 4.64 children were born per marriage in 1861; in England the average is 3.89; in France only 3.1.

Now Dr. Bemiss collected 833 cases of consanguineous marriage, of which only 53, or 6.4 per cent., proved barren; while the remaining marriages produced 3,942 children, or an average

of 4.7 per marriage, barren and fertile. Of 299 cases collected from various authors in a recent work on this subject,* we find 17 marriages were barren, or 5.7 per cent. We were inclined to attribute this superiority in fertility of consanguineous marriages to the probability that cousins know more about each other's health before they marry, and also marry earlier, generally, than do persons who are not related; for we know from Dr. Duncan's researches that early marriages are the most prolific. But this would not explain the greater fertility of the offspring of cousins who marry strangers, if we may venture a deduction from 93 marriages only; and Mr. G. H. Darwin suggests that since it is more likely that consanguineous marriages will occur where the family group is large than where it is small, this superior fertility may be inherited.

The general result, then, of such statistics as we possess, in the absence of a census, points to the harmlessness of marriages between near kin. We could bring forward many more figures on this subject, all tending to the same point. But in a short paper of this kind they could not be properly discussed; nor is it necessary, as we conceive that the figures already given are quite sufficient in the present doubtful state of our knowledge of the true proportion between consanguineous and non-consanguineous marriages.

The third proof, or the effects of continued intermarriage in a small community, is next door to direct experiment, and only differs in being less exact. To experiment on human beings, it would be necessary to shut up a community, under favorable circumstances, and see that they contracted only consanguineous and healthy marriages. Luckily, there is a remarkable tendency in all animals to separate off into small communities, and this tendency is exemplified in the human animal by all savage tribes, which refuse to intermarry with their neighbors, or have established castes, and in European countries by many small communities. The fishing populations dotted around the western European coasts regard the peasantry with the greatest contempt, and, of course, refuse to intermarry with them. Inland, the hostility of neighboring villages has not long been extinct; and in many parts of Europe there are still spots thus artificially or naturally isolated, the inhabitants of which constantly intermarry among themselves. Such instances are par-

* See the *Westminster Review* for October, 1875.

ticularly valuable in an inquiry of this nature, as the inhabitants not only do not cross, but never subject themselves to any change. We might give many, but confine ourselves to an account of the community at Batz, near Le Croisic, given by Dr. Voisin, who carefully inquired into the history of every marriage.

This commune of Batz is situated on a peninsula, bounded on one side by precipitous sea-washed rocks, and shut off from the mainland by a salt marsh. The inhabitants number 3,300, and have but a very limited intercourse with the rest of the department (Loire Inférieure.) Their character is simple, but intelligent; they are reserved to strangers, and drunkenness and crime are unknown. Though they have been in the habit of closely intermarrying among themselves generation after generation, not a single individual suffered from any disease of the mind, from deaf-mutism, albinoism, blindness, or malformation. At the time of Dr. Voisin's visit, everybody was related, of course, but 46 marriages were between near relatives, of which 5 were between first cousins, 31 between second cousins, and 10 between cousins of the fourth degree. The 5 marriages between first cousins produced 23 children, or an average of 4.6 per marriage; while the average for all France is, according to M. Husson, only 3 per marriage. All these children were healthy, but 2 died from acute diseases. The 31 marriages between second cousins produced 120 children, or 3.87 per marriage, none of whom were affected by any congenital malformation or infirmity, but 24 of them died of acute diseases. The 10 remaining marriages produced 29 children, all healthy, but 3 of them died of acute diseases. Of the whole 46, only 2 marriages proved barren, or 4.3 per cent.; while the average of barrenness, as we have seen, stands far higher.

We see, therefore, that an ignorant community of people, who are obliged daily to toil in the unhealthy occupation of collecting salt from exposed and foggy salt marshes, may remain healthy notwithstanding constant consanguineous marriages, continued generation after generation. It is, indeed, an extraordinary and unfair test. For, were it even proved that all nations which married exclusively among themselves were dying out, that would be no argument against consanguineous marriage. We might as justly argue that because the natives of a country where the importation of corn, even in famine

years, was strictly prohibited, were in danger of starvation, therefore that country was infertile. The truth is, that any restriction on individual freedom is hurtful in itself, and should be imposed only on the plainest and clearest evidence that freedom causes a greater hurt than its curtailment would produce.

In another way, there can be no doubt that a community isolating itself, whether consanguineous marriage is the rule, as among the Basques, or consanguineous marriage is prohibited, as in China, will fall behind less exclusive communities in the grand struggle for existence. It requires no demonstration that the greater the amount of inter-communication of thought, the greater will be the progress. But consanguineous marriage need not hinder the exchange of ideas. Such marriages may be constant, as among the Jews, and the community may yet hold unrestricted intercourse with all the world. Or, again, there may be impassable barriers between one nation and the rest of the world, and yet marriages between near relations be forbidden. It is the interference with perfect liberty which is the harmful element, whether it acts by forcing or prohibiting marriages of consanguinity.

We regret that the question was not settled once and forever by the census of 1871, and hope that no misguided opposition may prevent its solution in 1881. Meanwhile, however, we have very various and cogent evidence that such marriages have been unjustly accused. We venture to think that Mr. Darwin's work has not settled the question absolutely as regards the vegetable world; but should other investigations confirm his deductions, it has still to be proved that marriages between near kin are harmful in their results.

THE GREATEST GOOD TO THE GREATEST NUMBER.

BY ISAAC LEWIS PEET, LL. D., NEW YORK.

[THE following extract from the last annual report of the New York Institution presents very forcibly, and at the same time candidly, the considerations which have led the great majority of American instructors, notwithstanding the excellent results produced by articulation in many cases, to prefer the manual method for the instruction of the deaf and dumb, as a class.—ED. ANNALS.]

During the past year, in the New York Institution, instruction in articulation and lip-reading has been given, in connection with their regular studies, to 45 pupils, while 116 others have received special training, making the whole number who have been instructed 161, or about 30 per cent. of the school. In this department, as well as in every other, we are steadily seeking after higher success, in spite of the obstacles in our path. In fact, these obstacles only stimulate us to greater exertions. Still, it is well to recognize the limitations which ought to control our endeavors, and be careful not to yield substance to shadow. And here we are met with the inquiry: Are there any reasons why deaf-mutes, as a class, should not be taught articulation? Admitting the question of fact that deaf-mutes who have never heard or spoken have been taught to utter words and sentences so distinctly as to be understood, is there any reason why the experiment should not be made with every deaf-mute, and abandoned only after all effort has been exhausted?

It will, of course, be expected that, after all the discussion which has been had on this subject, the answer shall be based on ample experience, and shall be free from all preconception and prejudice. That adequate opportunity has been afforded in connection with this Institution for thorough investigation, and that a degree of interest has been felt sufficient to justify a claim to an impartial expression of opinion, is evident from the fact that, since the year 1867, special teachers of articulation have been constantly employed, and that they have had the enthusiastic co-operation of the principal, with the hope that the best results might be secured, and that whatever merit could attach to this effort to benefit the deaf and dumb might be enjoyed in full measure by an Institution, the officers of which, whatever may have been their errors of judgment, have

been animated by a sincere desire to neglect nothing that shall inure to the welfare of those committed to their charge.

And here the remark seems pertinent, that, making due allowances for the imperfection of everything human, a work, to be properly done, should be thoroughly done. No mere approximation should be accepted. In its application to the points we are considering, this principle requires that, for practical purposes, the deaf-mute should have a vocal utterance so clear that it shall not require on the part of the hearer an ear educated and attuned to his particular mode of enunciation, nor a mind quick to catch his meaning through the necessities of the connection; so natural, that it shall not startle by its peculiarity; so correct, that it shall not be a perpetual appeal to the sympathies of the benevolent and the complaisance of the humane; so agreeable, that it shall not excite the mirth of the unthinking nor the ridicule of the unfeeling. If this be acknowledged, our question is answered at the very outset. Among those who have never heard, the cases in which we find distinctness of articulation, correctness of intonation, and euphony of enunciation, if, indeed, they ever exist, are the rare exceptions, and by no means the rule.

There are many parents, however, who would accept an utterance far short of this, and friends who would look with wonder and sympathy upon a far less degree of correctness in speech, fancying that this approximation to speech, or substitution for it, has an actual inherent value, and brings their children nearer to them in the intercourse of daily life and association; and hence comes the pressure, so far as it exists, upon a public institution, to provide instruction in this direction. The wealthy can, without difficulty, employ a private teacher, who can be the constant companion of the child and develop language as well as speech; a distinction, be it observed, which is founded upon the difference between an essential comprehension and use of connected words and a particular and unessential form of expression. By such, there are frequently to be found faithful and competent teachers, well skilled in this specialty, and there would be many more should the demand for them justify the time and study requisite for proper preparation. And, whenever a parent of sufficient means desires to have his children taught to speak and read upon the lips, the proper course for him to pursue would be to procure such an

instructor, either to live in the family or attend daily. There is nothing in common between the deaf-mute who depends upon articulation as his form of expression and other deaf-mutes, so far as communication goes, and therefore none of the advantages of school life are to be secured by him, and, consequently, he will lose nothing in that direction; but the increased individual attention which is the very life of progress in artificial speech will be secured by the employment of a private teacher. All the cases of success that have been so marked as to attract public attention, either at home or abroad, in the more recent or the more remote periods of the existence of the art, from Bonet to Bell, have been the results of devoted individual attention.

The poor man, however, looks to those organized schools which have grown out of public and private beneficence for all that can be done for his child, and he looks not in vain. But he will here always find, and, if he does not, he should always find, the underlying principle controlling all theories, methods, and regulations to be "the greatest good to the greatest number."

Does this include articulation?

Is it even a good?

The boon of which the deaf-mute is deprived is hearing. Speech is a mere corollary of this, being only the natural method of expression which hearing induces and suggests. Give him speech without language; teach him to pronounce distinctly every word in the dictionary; enable him to read fluently and distinctly and at sight any book you may place in his hands; and it is of no benefit to him because it has no significance. It is of no more value than teaching the pronunciation of French and German without teaching the language would be to the ordinary youth in possession of all his senses. But give him a written language, such as human ingenuity has devised to give fixity and permanence to human thought; give him something for the eye to rest upon and enable his mind to grasp the ideas which are embodied in the forms before it; and you have measurably substituted one sense for another, you have caused sight to take the place of hearing, you have trained the eye to perform the office of the ear.

In doing this, however, it is necessary to accept new relations. With the loss of hearing as the receptive faculty, comes

the loss of speech as the expressive. The opening of sight as the avenue of ideas requires a different vehicle for their conveyance from the mind as well as to it.

The congenital deaf-mute naturally thinks in pictures. Vision is the organ of memory and of reason. Pictorial forms, therefore, constitute his methods of expression. Hence, pantomime, and that language of signs which springs up whenever two deaf-mutes are brought together; a language whose forms and order, as well as the analogies which extend its power and compass, are all of a pictorial character. This is found of value in giving significance to the written word, and in testing the deaf-mute's conception thereof.

Then, as alphabetic language gradually becomes the vehicle of thought, writing, and its most convenient substitute, the manual alphabet, by means of which words may be spelled so as to be visible to the eye with a rapidity quite equal to that of deliberate vocal utterance, may be made the instruments of expression.

With the command of these, the deficiencies of the deaf-mute disappear in proportion to the thoroughness of his education, till the sentiment of pity on the part of those who have observed his progress gives place to admiration, and to the exclamation, "What hath God wrought!" There is no labored, indistinct, disagreeable enunciation, which cannot fail to call constant attention to his misfortune, whatever may be the cultivation of his mental powers.

There is, merely, in the use of the manual alphabet, an employment of a graceful, easy method of communication, with which any intelligent person may become familiar in a very short time; or, in the use of writing, a resort to that mode of expressing thought which, in these days of daily newspapers and cheap postage, constitutes the most important feature in the commerce of ideas.

Whatever unnecessarily retards this acquisition of alphabetic language and detracts from the vigor and energy of mind essential thereunto is an evil to be avoided.

That instruction in articulation has this effect in the case of the congenital deaf-mute is apparent when we consider—

1. That the pupil does not, as in either of the methods of expression heretofore mentioned, have an appreciative consciousness of the effect he is producing. Not hearing his own voice,

his attention is directed more to certain rules which he has been taught for putting his organs of speech in certain positions, expelling the breath in a peculiar way, making certain contractions of the throat, and modulating these efforts so as not to pitch the voice on a key either too high or too low, than to the substance of what he is saying; and like a blind man shooting at a mark, his sole knowledge of the success of his efforts is what he is told. When he is writing or spelling, however, he sees what he is doing, and knows exactly how his communication ought to be received, just as the hearing man feels instinctively, from the perception of his own intonations, what he has to expect. He is, therefore, rather discouraged than encouraged, like a steed handicapped by excessive weight.

2. The methods employed to impart skill in articulation are burthensome to both teacher and pupil. It is not attained, as many seem to think, by imitating the motions of another's lips, which would make lip-reading the antecedent and articulation its natural consequent; but a thorough comprehension of the position of the lips, tongue, or other organs, for producing certain sounds, has to be imparted, and actual manipulation has frequently to be employed by the teacher, who, when the pupil fails to place the organs in their required positions, has to do it for him. This is, of course, a great strain upon the nervous system, injurious in some cases, it is believed, to the health, and certainly more or less unfavorable to that equipoise of mind and body which is most favorable to a healthful intellectual activity.

3. It consumes a great deal of time that can ill be spared from the more important work of becoming familiar with the hidden meaning and idiomatic use of words and phrases. Not only are the different consonant sounds to be mastered and the modes of producing the nicely-shaded vowel sounds to be impressed upon the mind, but the application of these to spelled words is to be ascertained. In addition to this, there is the vocal culture, so much a matter of experience on the part of the teacher and of faith on the part of the pupil. But even this is not all. The eye must be trained to recognize in others the position of the vocal organs assumed in uttering the successive sounds that go to make up the pronunciation of a word. This is, with the majority of deaf-mutes, a matter of great uncertainty, and requires, for its acquisition, a great amount of practice.

Articulation, without lip-reading, is a source of annoyance rather than convenience, as it challenges a reply by speech which is unintelligible. Lip-reading, if generally possible, would have far the greater value of the two, as it would give the deaf-mute an idea of what was being said in his presence. It is, however, a still rarer accomplishment.

4. Articulation is a very imperfect instrument of instruction, involving constant repetition on the part of the teacher to enable his pupils to catch his meaning, and is an unsatisfactory method of class-recitation, by reason of its being, in the case of each individual, isolated in its character.

Finally, in the most satisfactory cases, it does not facilitate the enjoyment by the deaf-mute of mixed society, being totally inadequate to the needs of general conversation, for his glance cannot, like the ear, follow quickly the ever-succeeding remarks of different individuals, nor decide when his own remarks will be pertinent to the occasion. A hearing friend, conversant with signs or with the manual alphabet, will convey, in the way of interpretation, more of the salient points of statement, discussion, wit, and repartee, than could a whole company successively addressing their remarks to the deaf-mute in speech; while his own contributions to the entertainment would be far more neatly and agreeably expressed if written and read aloud, or spelled and interpreted, than if spoken with his own peculiar voice and intonation. And in those situations, which are constantly arising in social gatherings, in which conversers are grouped in pairs, he would find writing a far more quiet, interesting, certain, and rapid method of communication. As a deaf-mute, he enjoys in these ways all that he can hope to enjoy when among hearing persons, but when challenging attention by a vocal utterance he is placed at a disadvantage in every respect. The speaking mute, like all other perversions of the strict order of nature, is, in fact, more an object of wonder than of admiration.

That there are cases, however, among our pupils to which the preceding remarks do not apply, certainly in their full force, is to be inferred from our practice. In every large institution will be found a number of individuals who, on account of the possession of hearing in early childhood, retain a remnant of speech, united with more or less of language, especially if they learned to read before they became deaf; while there are others

who have a degree of hearing sufficient to enable them to perceive and to utter pure vowel sounds, and, in many instances, to speak in defective sentences, the omitted words being those which the hearing was insufficient to grasp when similar sentences had been spoken in their presence. The former are called semi-mutes; the latter semi-deaf. The semi-mutes who come to us rarely possess any hearing whatever, the disease which caused their deafness having destroyed the auditory nerve. The semi-deaf, on the contrary, generally present the phenomenon of immature development of the auditory apparatus previous to birth, and among these improvement in hearing has sometimes been manifested in advancing years. To both these classes articulation and lip reading are of decided benefit; to the semi-mute, in continuing a mental habit, contracted in early childhood, of thinking in words; to the semi-deaf, in turning to practical use a faculty capable of considerable development; and it is an interesting fact that the latter gain more quickness of intellect, and improve more rapidly, under a course of instruction that recognizes their partial hearing than under one which addresses the eye alone. Both these classes are capable of acquiring considerable, and, in many cases, remarkable ability to catch spoken words by watching the movements of the face and the positions of the lips.

Each of them affords something to build upon, and gives promise of creditable success; while the labor involved, as compared with that which is required in giving artificial speech to the mute who has, at the outset, neither knowledge of language nor conception of sound, is incomparably less.

To neglect to keep up and improve the speech of the semi-mute would be to fail in an obvious duty. To overlook the possibilities of improvement presented in the case of one possessing a partial hearing would be to turn from a path which nature points out both to pupil and to teacher. Our provision for teaching articulation, therefore, is intended to meet the necessities of the cases just presented. In addition to these there are a few bright deaf-mutes with remarkable perceptive faculties, and with intellectual energies of uncommon vigor, who desire to learn to speak and read the lips. To these it would be a matter of discretion to give the opportunity that they crave, especially as, on account of their superior ability, they would not be so likely to be retarded in their studies as would others of inferior powers.

ADDRESS DELIVERED ON PRESENTATION DAY, THE FOURTEENTH ANNIVERSARY OF THE NATIONAL DEAF-MUTE COLLEGE, MAY 1, 1878.

BY EDWARD M. GALLAUDET, PH. D., LL. D., WASHINGTON.

THE occasion which has brought us together at this hour is one of more than ordinary interest to the friends of this Institution.

Besides being a day of festivity and rejoicing to all the members of the College, and the day of days to the young men who are soon to go out from its protecting walls, it is the crowning day of many years to those who have watched this Institution from its foundation, and to those who have labored for its upbuilding.

In the times when science was young, the belief was widespread that certain occult powers resided in numbers; that periods in the lives of men and of nations, represented by arithmetical quantities, were momentous.

Although the science of the present no longer accepts these antiquated notions, a certain interest, which it is not easy to explain, attaches to such coincidences as seem to sustain the superstitions of our forefathers. And I trust I shall not be looked upon as a believer in the doctrines of the Cabala when I call attention to the fact that, in the history of the Institution whose anniversary we are assembled to celebrate, the sacred number *seven* marks the epochs of importance.

The end of the first seven years found the primary department complete in its appointments, and witnessed the inauguration of the College. At twice seven years the success of the latter as an educational undertaking had been demonstrated by the graduation of two classes from the full course of study; the broad domain of Kendall Green had been secured, and the building in which we are now gathered was finished and dedicated.

The third epoch, which closes to-day, finds the buildings of the Institution complete, its organization perfected, and its resources, as assured by the legislation of Congress, sufficient for the work it has to do.

The Institution enters upon a new existence from this time. The formative, experimental era is past. Henceforth its work is in the line of direct, untrammelled, feasible educational effort.

There exists no longer a question as to the possibility of directing deaf-mutes through a course of collegiate study. Nor is there any uncertainty as to the value of such training in fitting deaf-mutes for the higher walks of practical life.

Our earliest graduate is an instructor in the primary department of this Institution.

Of the class of '69, one member is the principal of the Western Pennsylvania Institution for Deaf-Mutes, a flourishing school of nearly eighty pupils; another, well known in Washington, fills the position of principal examiner in the Patent Office, proving himself fully competent for the discharge of his important and delicate duties; while another is a professor in the faculty of our own College.

One of the class of '70 is the principal teacher in the young deaf-mute institution of Oregon; others are instructors in Connecticut, Ohio, Tennessee, and Ontario, Canada.

Of the class of '72, one is a professor in our College, one is the editor and publisher of a newspaper in Massachusetts, one has charge of a school for deaf-mutes in Cincinnati, and others are teaching in Nebraska and Mississippi.

From the later classes, teachers have been furnished to the States of Minnesota, Iowa, West Virginia, Maryland, Indiana, Ohio, New York, and Pennsylvania, one has become an accomplished draughtsman in the office of a New York architect, and one has taken a place in a lawyer's office in Columbus. And there is reason to believe that these men, besides many others not yet called to positions of such prominence, are exerting, in the communities where they dwell, the influence of upright lives, inspired by the principles of reverence to God and love to their fellow-men.

At our second commencement, in 1870, a warm friend of the College, then Secretary of the Interior, alluded to the missionary work that our graduates would find to do as teachers among those who were, like themselves, bereft of hearing. How fully and how soon his prediction has been fulfilled will appear from the fact that at the present time graduates of our College have under their immediate care and training upwards of four hundred children and youth in the institutions of this country and Canada.

And thus, even before it has reached its maturity, we are allowed the satisfaction of knowing that the College for Deaf-

Mutes, denounced in prominent quarters but a few years since as an extravagant and useless experiment, has already done a work for the advantage of the whole country the value of which cannot be estimated in money.

Turning from the consideration of the benefits this College may be expected to confer on the community at large, through the work of its graduates, it will, perhaps, be interesting to many here present to be informed as to the course of study afforded to the students, the satisfactory completion of which is made the ground for the conferring of our academic honors.

In the department of mathematics, the freshmen complete algebra; they also study plain geometry, the geometry of space, and the conic sections. The sophomores study plane and spherical trigonometry to mensuration and surveying, and learn to use logarithms with facility and precision in computations. The juniors demonstrate the propositions of mechanics mathematically, and solve numerous problems. They also study astronomy, and, while their work is chiefly of a descriptive character, classes have mastered the mathematical portions of Loomis's Treatise by extending the study into the first term of the senior year.

In the department of natural sciences an elementary work is studied by the sophomores, accompanied by illustrative experiments. In the junior year, practical chemistry is taken up, and laboratory work is performed by each member of the class. A short course in qualitative analysis is pursued, which illustrates the methods, and enables the class to identify all the common minerals in compounds.

Natural philosophy is studied during the junior year, illustrations of the principal phenomena being given by means of suitable apparatus.

Botany occupies two terms of the sophomore year, zoology, physiology, mineralogy, and geology receiving attention at subsequent points of the course.

Beck's binocular microscope and Morton's college lantern are used for the purposes of manipulation and illustration.

The course in history is as full as that of the prominent colleges, comprising the study of American and English history, and a general survey of all the States of the civilized world in ancient and modern times.

More stress is laid upon both the critical and practical study

of the English language than in other colleges, owing to the general deficiency of the deaf and dumb of this country in the use of that tongue; and philological studies, which are made optional in most colleges, are here included in the regular course. Frequent exercises in original composition are required of students in all the classes, and a full course in English literature is given.

Latin is studied during the freshman year, and about one-half the sophomore year; and while—owing to the prominence given to French and German, and the critical study of the English—the proportion of time devoted to the ancient languages is less than in the usual curriculum of American colleges, it is believed that Latin is taught in such a manner as to awaken in the students the true spirit of classical scholarship, and enable them subsequently to read the more difficult authors independently, with pleasure and profit.

French and German are taught by the "natural method" of Professors Heness and Sauveur, the language to be imparted being the only one used in the class-room, and familiarity with the grammatical forms and idioms being acquired by means of conversation and reading before the principles of grammar are taken up. The relations of French to Latin, and of both French and German to English, are explained. The success attained under the "natural method" has been of the most gratifying character.

Logic, rhetoric, and mental science receive as full attention as is usual in colleges; and the same may be said of moral philosophy, evidences of Christianity, political economy, international law, and æsthetics.

In all the departments of study ordinary college text-books are used; recitations are conducted almost wholly in verbal language, and the examinations, which occur three times a year, at the close of each term, are in writing.

On a scale of ten, a mark of 6.5 is necessary to pass an examination, and a standing below 7 is subject to censure.

Lectures are frequently given by the professors on subjects within their respective departments, and occasionally our students enjoy the benefit of addresses from gentlemen not connected with the College, such exercises being interpreted in the manner made use of in your presence to-day.

The young men who are to present essays this afternoon

have reached the point in the course of study just detailed which entitles them to the position of candidates for degrees.

Three of them, having lost their hearing in childhood, are able to speak well enough to be understood in conversation; their voices are not, however, strong enough to reach the most distant portions of this hall.

It will be understood, therefore, that the authors of the essays read will make use of the language of signs in their delivery.

In opening the exercises of Presentation Day in the year of grace 1878, and of the independence of the United States the 102d, may I be permitted, on behalf of the faculty of the College, to congratulate the board of directors, the representatives of the Government whose liberal appropriations have nobly supplemented and exceeded the benefactions of individuals, and all who have contributed of their time or their money for the support of this College, on the auspicious events of this day; and if I may be allowed to speak for those whose ears the finger of God has touched, sealing them until the resurrection morning, may I express the hope and belief that this Institution will not lack for support so long as there shall be found, within the length and breadth of our land, those who need its fostering care.

THE GESTURE-LANGUAGE.—I.

BY EDWARD B. TYLOR, LONDON, ENGLAND.

[THE chapters on the Gesture-Language in Mr. Tylor's "Researches into the Early History of Mankind and the Development of Civilization" (London: John Murray) contain so much that is interesting in various ways to teachers of deaf-mutes that we have long wished to reproduce them entire in the *Annals*. The space of the present number being less in demand than usual for original contributions, we are enabled to give the greater part of Mr. Tylor's remarks on this subject, reserving the remainder for a future number.—ED. ANNALS.]

The power which man possesses of uttering his thoughts is one of the most essential elements of his civilization. Whether he can even think at all without some means of outward expression is a metaphysical question which need not be discussed here. Thus much will hardly be denied by any one, that man's power of utterance, so far exceeding any that the lower animals possess, is one of the principal causes of his immense pre-eminence over them.

Of the means which man has of uttering or expressing that which is in his mind, speech is by far the most important, so much so that when we speak of *uttering* our thoughts, the phrase is understood to mean expressing them in words. But when we say that man's power of utterance is one of the great differences between him and the lower animals, we must attach to the word utterance a sense more fully conformable to its etymology. As Steinthal admits, the deaf and dumb man is the living refutation of the proposition that man cannot think without speech, unless we allow the understood notion of speech as the utterance of thought by articulate sounds to be too narrow.* To *utter* a thought is literally to put it outside us, as to *express* it is to squeeze it out. Grossly material as these metaphors are, they are the best terms we have for that wonderful process by which a man, by some bodily action, can not only make other men's minds reproduce more or less exactly the workings of his own, but can even receive back from the outward sign an impression similar to theirs, as though not he himself, but some one else, had made it.

Besides articulate speech, the principal means by which man can express what is in his mind are the gesture-language, picture-writing, and word-writing. If we knew now, what we hope to know some day, how language sprang up and grew in the world, our knowledge of man's earliest condition and history would stand on a very different basis from what it now does. But we know so little about the origin of language that even the greatest philologists are forced either to avoid the subject altogether, or to turn themselves into metaphysicians in order to discuss it. The gesture-language and picture-writing, however, insignificant as they are in practice in comparison with speech and phonetic writing, have this great claim to consideration, that we can really understand them as thoroughly as perhaps we can understand anything, and by studying them we can realize to ourselves in some measure a condition of the human mind which underlies anything which has as yet been traced in even the lowest dialect of language, if taken as a whole. Though, with the exception of words in which we can trace the effects either of direct emotion, as in

* Steinthal, "Ueber die Sprache der Taubstummen" (in Prutz's "Deutsches Museum," Jan. to June, 1851, p. 904, etc.)

interjections, or of imitative formation, as in "peewit" and "cuckoo," we cannot at present tell by what steps man came to express himself by words, we can at least see how he still does come to express himself by signs and pictures, and so get some idea of the nature of this great movement, which no lower animal is known to have made or shown the least sign of making. The idea that the gesture-language represents a distinct, separate stage of human utterance, through which man passed before he came to speak, has no support from facts. But it may be plausibly maintained that in early stages of the development of language, while as yet the vocabulary was very rude and scanty, gesture had an importance as an element of expression, which in conditions of highly-organized language it has lost.

The gesture-language, or language of signs, is in great part a system of representing objects and ideas by a rude outline-gesture, imitating their most striking features. It is, as has been well said by a deaf and dumb man, "a picture-language." Here at once its essential difference from speech becomes evident. Why the words *stand* and *go* mean what they do is a question to which we cannot as yet give the shadow of an answer, and if we had been taught to say "stand" where we now say "go," and "go" where we now say "stand," it would be practically all the same to us. No doubt there was a sufficient reason for these words receiving the meanings they now bear, as indeed there is a sufficient reason for everything; but so far as we are concerned, there might as well have been none, for we have quite lost sight of the connection between the word and the idea. But in the gesture-language the relation between idea and sign not only always exists, but is scarcely lost sight of for a moment. When a deaf and dumb child holds his two first fingers forked like a pair of legs, and makes them stand and walk upon the table, we want no teaching to show us what this means, nor why it is done.

This definition of the gesture-language is, however, not complete. Such objects as are actually in the presence of the speaker, or may be supposed so, are brought bodily into the conversation by touching, pointing, or looking towards them, either to indicate the objects themselves or one of their characteristics. Thus, if a deaf and dumb man touches his under lip with his forefinger, the context must decide whether he means

to indicate the lip itself or the color "red," unless, as is sometimes done, he shows, by actually taking hold of the lip with finger and thumb, that it is the lip itself, and not its quality, that he means.* Under the two classes, "pictures in the air" and things brought before the mind by actual pointing out, the whole of the sign-language may be included.

It is in deaf and dumb institutions that the gesture-language may be most conveniently studied, and what slight practical knowledge I have of it has been got in this way in Germany and in England. In these institutions, however, there are grammatical signs used in the gesture-language which do not fairly belong to it. These are mostly signs adapted, or perhaps invented, by teachers who had the use of speech, to express ideas which do not come within the scope of the very limited natural grammar and dictionary of the deaf and dumb. But it is to be observed that though the deaf and dumb have been taught to understand these signs and use them in school, they ignore them in their ordinary talk, and will have nothing to do with them if they can help it.

By dint of instruction, deaf-mutes can be taught to communicate their thoughts, and to learn from books and men, in nearly the same way as we do, though in a more limited degree. They learn to read and write, to spell out sentences with the finger-alphabet, and to understand words so spelled by others; and besides this, they can be taught to speak in articulate language, though in a hoarse and unmodulated voice, and, when another speaks, to follow the motions of his lips almost as though they could hear the words uttered.

It may be remarked here, once for all, that the general public often confuses the real deaf and dumb language of signs, in which objects and actions are expressed by pantomimic gestures, with the deaf and dumb finger-alphabet, which is a mere substitute for alphabetic writing. It is not enough to say that the two things are distinct; they have nothing whatever to do with one another, and have no more resemblance than a picture has to a written description of it. Though of little scientific interest, the finger-alphabet is of great practical use. It appears to have been invented in Spain, to which country the world

* A slight difference in the manner of touching the lip indicates to persons familiar with the language whether the lip itself or its quality is referred to.—Ed. Annals.

owes the first systematic deaf and dumb teaching, by Juan Pablo Bonet, in whose work a one-handed alphabet is set forth differing but little from that now in use in Germany, or, perhaps, by his predecessor, Pedro de Ponce. The two-handed or French alphabet, generally used in England, is of newer date.*

The mother tongue (so to speak) of the deaf and dumb is the language of signs. The evidence of the best observers tends to prove that they are capable of developing the gesture-language out of their own minds without the aid of speaking men. Indeed, the deaf-mutes in general surpass the rest of the world in their power of using and understanding signs, and for this simple reason, that though the gesture-language is the common property of all mankind, it is seldom cultivated and developed to so high a degree by those who have the use of speech as by those who cannot speak, and must therefore have recourse to other means of communication. The opinions of two or three practical observers may be cited to show that the gesture-language is not, like the finger-alphabet, an art learned in the first instance from the teacher, but an independent process originating in the mind of the deaf-mute, and developing itself as his knowledge and power of reasoning expand under instruction.

Samuel Heinicke, the founder of deaf and dumb teaching in Germany, remarks:

"He [the deaf-mute] prefers keeping to his pantomime, which is simple and short, and comes to him fluently as a mother-tongue."†

Schmalz says: "Not less comprehensible are many signs which we indeed do not use in ordinary life, but which the deaf and dumb child uses, having no means of communicating with others but by signs. These signs consist principally in drawing in the air the shape of objects to be suggested to the mind, indicating their character, imitating the movement of the body in an action to be described, or the use of a thing, its origin, or any other of its notable peculiarities."‡

"With regard to signs," says Dr. Scott, of Exeter, "the [deaf and dumb] child will most likely have already fixed upon signs by which it names most of the objects given in the above

* Bonet, "Reduction de las Letras, y Arte para enseñar á ablar los Mudos;" Madrid, 1620; pp. 128, etc. Schmalz, "Ueber die Taubstummen;" Dresden and Leipzig, 1848; pp. 214, 352.

† Heinicke, "Beobachtungen über Stumme," etc.; Hamburg, 1778, p. 56.

‡ Schmalz, p. 267.

lesson, [pin, key, etc.,] and which it uses in its intercourse with its friends. These signs had always better be retained, [by the child's family,] and if a word has not received such a sign, endeavor to get the child to fix upon one. It will do this, most probably, better than you."*

The Abbé Sicard, one of the first and most eminent of the men who have devoted their lives to the education and "humanizing" of these afflicted creatures, has much the same account to give:

"It is not I," he says, "who am to invent these signs. I have only to set forth the theory of them under the dictation of their true inventors, those whose language consists of these signs. It is for the deaf and dumb to make them, and for me to tell how they are made. They must be drawn from the nature of the objects they are to represent. It is only the signs given by the mute himself to express the actions which he witnesses, and the objects which are brought before him, which can replace articulate language."

Speaking of his celebrated deaf and dumb pupil, Massieu, he says:

"Thus, by a happy exchange, as I taught him the written signs of our language, Massieu taught me the mimic signs of his." "So it must be said that it is neither I nor my admirable master [the Abbé de l'Epée] who are the inventors of the deaf and dumb language. And as a foreigner is not fit to teach a Frenchman French, so the speaking man has no business to meddle with the invention of signs, giving them abstract values."†

All these are modern statements; but long before the days of deaf and dumb institutions Rabelais' sharp eye had noticed how natural and appropriate were the untaught signs made by born deaf-mutes. When Panurge is going to try by divination from signs what his fortune will be in married life, Pantagruel thus counsels him:

"Pourtant, vous fault choisir ung mut sourd de nature, affin que ses gestes vous soyent naifuement propheticques, non fainctz, fardez, ne affectez."

Nor are we obliged to depend upon the observations of ordinary speaking men for our knowledge of the way in which the gesture-language develops itself in the mind of the deaf and dumb. The educated deaf-mutes can tell us from their own

* Scott, "The Deaf and Dumb;" London, 1844, p. 84.

† Sicard, "Cours d'Instruction d'un Sourd-muet:" Paris, 1803, pp. xlv, 18.

experience how gesture-signs originate. The following account is given by Kruse, a deaf-mute himself, and a well-known teacher of deaf-mutes, and author of several works of no small ability:

"Thus the deaf and dumb must have a language, without which no thought can be brought to pass. But here nature soon comes to his help. What strikes him most, or what * * makes a distinction to him between one thing and another, such distinctive signs of objects are at once signs by which he knows these objects, and knows them again; they become tokens of things. And whilst he silently elaborates the signs he has found for single objects—that is, whilst he describes their forms for himself in the air, or imitates them in thought with hands, fingers, and gestures, he develops for himself suitable signs to represent ideas, which serve him as a means of fixing ideas of different kinds in his mind and recalling them to his memory. And thus he makes himself a language, the so-called gesture-language (*Geberden-sprache ;*) and with these few scanty and imperfect signs a way for thought is already broken, and with his thought, as it now opens out, the language cultivates and forms itself further and further."*

I will now give some account of the particular dialect (so to speak) of the gesture-language which is current in the Berlin Deaf and Dumb Institution. † I made a list of about 500 signs, taking them down from my teacher, Carl Wilke, who is himself deaf and dumb. They talk of 5,000 signs being in common use there, but my list contains the most important. First, as to the signs themselves, the following, taken at random, will give an idea of the general principle on which all are formed:

To express the pronouns "I, thou, he," I push my fore-finger against the pit of my stomach for "I;" push it towards the person addressed for "thou;" point with my thumb over my right shoulder for "he," and so on.

---

*Kruse, "Ueber Taubstummen," etc.: Schleswig, 1853, p. 51.

†Whether the "dialects" of the different deaf and dumb institutions have received any considerable proportion of natural signs from one another, as, for instance, by the spreading of the system of teaching from Paris, I am unable to say; but there is so much in each that differs from the others in detail, though not in principle, that they may, I think, be held as practically independent, except as regards grammatical signs.

[Undoubtedly a large number of the natural signs most generally in use in the institutions for the deaf and dumb in America came from the Paris Institution; at the same time very many new signs have been introduced, and some of those imported have been considerably modified.—Ed. Annals.]

When I hold my right hand flat, with the palm down, at the level of my waist, and raise it towards the level of my shoulder that signifies "great;" but if I depress it instead, it means "little."

The sign for "man" is the motion of taking off the hat; for "woman," the closed hand is laid upon the breast; for "child," the right elbow is dandled over the left hand.

The adverb "hither" and the verb "to come" have the same sign, beckoning with the finger towards oneself.

To hold the first two fingers apart, like a letter V, and dart the finger tips out from the eyes, is to "see." To touch the ear and tongue with the forefinger, is to "hear" and to "taste." Whatever is to be pointed out, the forefinger, so appropriately called "index," has to point out or indicate.

> "* * * atque ipsa videtur
> Protrahere ad gestum pueros infantia linguæ
> Quom facit ut digito quæ sint præsentia monstrent." *

To "speak" is to move the lips as in speaking, (all the deaf and dumb are taught to speak in articulate words in the Berlin establishment,) and to move the lips thus, while pointing with the forefinger out from the mouth, is "name," or "to name," as though one should define it to "point out by speaking."

The outline of the shape of roof and walls done in the air with two hands is "house;" with a flat roof, it is "room." To smell as at a flower, and then with the two hands make a horizontal circle before one, is "garden."

To pull up a pinch of flesh from the back of one's hand is "flesh" or "meat." Make the steam curling up from it with the forefinger, and it becomes "roast meat." Make a bird's bill with two fingers in front of one's lips and flap with the arms, and that means "goose;" put the first sign and these together, and we have "roast goose."

How natural all these imitative signs are. They want no elaborate explanation. To seize the most striking outline of an object, the principal movement of an action, is the whole secret, and this is what the rudest savage can do untaught; nay, what is more, can do better and more easily than the educated man. "None of my teachers here who can speak," said the director of the Institution, "are very strong in the gesture-language. It is difficult for an educated speaking man to get

* Lucretius, v. 1029.

the proficiency in it which a deaf and dumb child attains to almost without an effort. It is true that I can use it perfectly; but I have been here forty years, and I made it my business from the first to become thoroughly master of it. To be able to speak is an impediment, not an assistance, in acquiring the gesture-language. The habit of thinking in words, and translating these words into signs, is most difficult to shake off; but until this is done, it is hardly possible to place the signs in the logical sequence in which they arrange themselves in the mind of the deaf-mute."

As new things come under the notice of the deaf and dumb, of course new signs immediately come up for them. So, to express "railway" and "locomotive," the left hand makes a chimney, and the steam curling almost horizontally out is imitated with the right forefinger. The tips of the fingers of the half-closed hand coming towards one like rays of light, is "photograph."

But the casual observer, who should take down every sign he saw used in class by masters and pupils as belonging to the natural gesture-language, would often get a very wrong idea of its nature. Teachers of the deaf and dumb have thought it advisable for practical purposes, not merely to use the independent development of the language of signs, but to add to it and patch it so as to make it more strictly equivalent to their own speech and writing. For this purpose signs have to be introduced for many words of which the pupil mostly learns the meaning through their use in writing, and is taught to use the sign where he would use the word. Thus, the clinched fists pushed forward, with the thumbs up, mean "yet." To throw the fingers gently open from the temple means "when." To move the closed hands with the thumbs out up and down upon one's waistcoat, is to "be." All these signs may, it is true, be based upon natural gestures. Dr. Scott, for instance, explains the sign "when" as formed in this way. But this kind of derivation does not give them a claim to be included in the pure gesture-language; and it really does not seem as though it would make much difference to the children if the sign for "when" were used for "yet," and so on.

The Abbé Sicard has left us a voluminous account of the sign-language he used, which may serve as an example of the curious hybrid systems which grow up in this way by the graft-

ing of the English, or French, or German grammar and dictionary on the gesture-language. Sicard was strongly impressed with the necessity of using the natural signs, and even his most arbitrary ones may have been based on such; but he had set himself to make gestures do whatever words can do, and was thereby often driven to strange shifts. Yet he either drew so directly from his deaf and dumb scholars, or succeeded so well in learning to think in their way, that it is often very hard to say exactly where the influence of spoken or written language comes in. For instance, the deaf-mute borrows the signs of space, as we do similar words, to express notions of time; and Sicard, keeping to these real signs, and only using them with a degree of analysis which has hardly been attained to but by means of words, makes the present tense of his verb by indicating "here" with the two hands held out, palm downward, the past tense by the hand thrown back over the shoulder, "behind," the future by putting the hand out, "forward." But when he takes on his conjugation to such tenses as "I should have carried," he is merely translating words into more or less appropriate signs. Again, by the aid of two forefingers hooked together—to express, I suppose, the notion of dependence or connection—he distinguishes between *moi* and *me*, and by translating two abstract grammatical terms from words into signs, he introduces another conception quite foreign to the pure gesture-language. If something that has been signed is a substantive, he puts the right hand under the left to show that it is that which stands underneath; while if it is an adjective, he puts the right hand on the top to show that it is the quality which lies upon or is added to the substantive below.*

These partly artificial systems are probably very useful in teaching, but they are not the real gesture-language; and, what is more, the foreign element, so laboriously introduced, seems to have little power of holding its ground there. So far as I can learn, few or none of the factitious grammatical signs will bear even the short journey from the school-room to the playground, where there is no longer any verb "to be," where the abstract conjunctions are unknown, and where mere position, quality, action, may serve to describe substantive and adjective alike.

* Sicard, "Théorie des Signes pour l'Instruction des Sourds-muets:" Paris: 1808, vol. ii, p. 562, etc. A really possible distinction appears in "lip," "red," *ante*, p. 165.

At Berlin, as in all deaf and dumb institutions, there are numbers of signs which, though most natural in their character, would not be understood beyond the limits of the circle in which they are used. These are signs which indicate an object by some accidental peculiarity, and are rather epithets than names. My deaf and dumb teacher, for instance, was named among the children by the action of cutting off the left arm with the edge of the right hand. The reason of this sign was, not that there was anything peculiar about his arms, but that he came from Spandau, and it so happened that one of the children had been at Spandau, and had seen there a man with one arm; thence this epithet of "one-armed" came to be applied to all Spandauers, and to this one in particular. Again, the Royal residence of Charlottenburg was named by taking up one's left knee and nursing it, in allusion apparently to the late king having been laid up with the gout there.

In like manner the children preferred to indicate foreign countries by some characteristic epithet, to spelling out their names on their fingers. Thus England and Englishmen were aptly alluded to by the action of rowing a boat, while the signs of chopping off a head and strangling were used to describe France and Russia, in allusion to the deaths of Louis XVI and the Emperor Paul, events which seem to have struck the deaf and dumb children as the most remarkable in the history of the two countries. These signs are of much higher interest than the grammatical symbols, which can only be kept in use, so to speak, by main force; but these, too, never penetrate into the general body of the language, and are not even permanent in the place where they arise. They die out from one set of children to another, and new ones come up in their stead.

The gesture-language has no grammar, properly so called; it knows no inflections of any kind, any more than the Chinese. The same sign stands for "walk," "walkest," "walking," "walked," "walker." Adjectives and verbs are not easily distinguished by the deaf and dumb; "horse black handsome trot canter" would be the rough translation of the signs by which a deaf-mute would state that a handsome black horse trots and canters. Indeed our elaborate systems of "parts of speech" are but little applicable to the gesture-language, though, as will be more fully said in another chapter, it may perhaps be possible to trace in spoken language a dualism, in

some measure resembling that of the gesture-language, with its two constituent parts, the bringing forward objects and actions in actual fact, and the mere suggestion of them by imitation.

It has, however, a syntax, which is worthy of careful examination. The syntax of speaking man differs according to the language he may learn: "equus niger," "a black horse;" "hominem amo," "j'aime l'homme." But the deaf-mute strings together the signs of the various ideas he wishes to connect, in what appears to be the natural order in which they follow one another in his mind; for it is the same among the mutes of different countries, and is wholly independent of the syntax which may happen to belong to the language of their speaking friends. For instance, their usual construction is not "black horse," but "horse black;" not "bring a black hat," but "hat black bring;" not "I am hungry, give me bread," but "hungry me bread give." The essential independence of the gesture-language may indeed be brought very clearly into view by noticing that ordinary educated men, when they first begin to learn the language of signs, do not come naturally to the use of its proper syntax, but, by arranging their gestures in the order of the words they think in, make sentences which are unmeaning or misleading to a deaf-mute, unless he can reverse the process by translating the gestures into words, and considering what such a written sentence would mean. Going once into a deaf and dumb school, and setting a boy to write words on the blackboard, I drew in the air the outline of a tent, and touched the inner part of my under-lip to indicate "red," and the boy wrote accordingly, "a red tent." The teacher remarked that I did not seem to be quite a beginner in the sign-language, or I should have translated my English thought *verbatim*, and put the "red" first.

The fundamental principle which regulates the order of the deaf-mute's signs seems to be that enunciated by Schmalz: "that which seems to him the most important he always sets before the rest, and that which seems to him superfluous he leaves out. For instance, to say, 'My father gave me an apple,' he makes the sign for 'apple,' then that for 'father,' and that for 'I,' without adding that for 'give.' "*

The following remarks, sent to me by Dr. Scott, seem to agree with this view:

"With regard to the two sentences you give, (I struck Tom

* Schmalż, p. 274.

with a stick, Tom struck me with a stick,) the sequence in the introduction of the particular parts would, in some measure, depend on the part that most attention was wished to be drawn towards. If a mere telling of the fact was required, my opinion is that it would be arranged so, 'I Tom struck a stick,' and the passive form in a similar manner, with the change of Tom first. But these sentences are not generally said by the deaf and dumb without their having been interested in the facts, and then, in coming to tell of them, they first give that part they are most anxious to impress upon their hearer. Thus, if a boy had struck another boy, and the injured party came to tell us; if he was desirous to impress us with the idea that a particular boy did it, he would point to the boy first. But if he was anxious to draw attention to his own suffering, rather than to the person by whom it was caused, he would point to himself and make the sign of striking, and then point to the boy; or if he was wishful to draw attention to the cause of his suffering, he might sign the striking first, and then tell afterwards by whom it was done."

Dr. Scott is, so far as I know, the only person who has attempted to lay down a set of distinct rules for the syntax of the gesture-language.* "The subject comes before the attribute, * * the object before the action." A third construction is common, though not necessary, "the modifier after the modified." The first construction, by which the horse is put before the "black," enables the deaf-mute to make his syntax supply, to some extent, the distinction between adjective and substantive, which his imitative signs do not themselves express. The other two are well exemplified by a remark of the Abbé Sicard's. "A pupil to whom I one day put this question, 'Who made God?' and who replied, 'God made nothing,' left me in no doubt as to this kind of inversion, usual to the deaf and dumb, when I went on to ask him, 'Who made the shoe?' and he answered, 'The shoe made the shoemaker.' "† So when Laura Bridgman, who was blind as well as deaf and dumb, had learnt to communicate ideas by spelling words on her fingers, she would say, "Shut door," "Give book;" no doubt because she had learnt these sentences whole; but when she made sentences for herself, she would go back to the natural deaf and dumb syntax, and spell out, "Laura bread give," to ask for bread to be given her, and "Water drink Laura," to express that she wanted to drink water.‡

* Scott, "The Deaf and Dumb," p. 53. † Sicard, "Théorie," p. xxviii.

‡ "Account of Laura Bridgman;" London, 1845, p. 26. A similar instance, p. 157, "Jacket Oliver give mother."

It is to be observed that there is one important part of construction which Dr. Scott's rules do not touch, namely, the relative position of the actor and the action, the nominative case and the verb. Dr. Schmalz attempts to lay down a partial rule for this. "If the deaf-mute connects the sign for an action with that for a person, to say that the person did this or that, he places, as a general rule, the sign of the action before that of the person. For example, to say 'I knitted,' he moves his hands as in knitting, and then points with his forefinger to his breast."* Thus, too, Heinicke remarks that to say, "The carpenter struck me on the arm," he would strike himself on the arm, and then make the sign of planing,† as if to say, "I was struck on the arm, the planing-man did it." But though these constructions are, no doubt, right enough as they stand, the rule of precedence according to importance often reverses them. If the deaf-mute wished to throw the emphasis not upon the knitting, but upon himself, he would probably point to himself first. Kruse gives the construction of "The ship sails on the water" like our own, "Ship sail water;" and of "I must go to bed," as "I bed go."‡

A look of inquiry converts an assertion into a question, and fully serves to make the difference between "The master is come," and "Is the master come?" The interrogative pronouns, "who?" "what?" are made by looking or pointing about in an inquiring manner; in fact, by a number of unsuccessful attempts to say "he," "that." The deaf and dumb child's way of asking, "Who has beaten you?" would be, "You beaten; who was it?" Though it is possible to render a great mass of simple statements or questions, almost gesture for word, the concretism of thought which belongs to the deaf-mute whose mind has not been much developed by the use of written language, and even to the educated one when he is thinking and uttering his thoughts in his native signs, commonly requires more complex phrases to be re-cast. A question so common amongst us as, "What is the matter with you?" would be put, "You crying? you been beaten?" and so on. The deaf and dumb child does not ask, "What did you have for dinner yesterday?" but "Did you have soup? Did you have porridge?" and so forth.§ A conjunctive sentence he expresses by an al-

* Schmalz, pp. 274, 58. † Heinicke, p. 56. ‡ Kruse, p. 57.

§ The child the author speaks of evidently has at his command a much

ternative or contrast: "I should be punished if I were lazy and naughty," would be put, "I lazy, naughty, no!—lazy, naughty, I punished, yes!" Obligation may be expressed in a similar way: "I must love and honor my teacher," may be put, "Teacher, I beat, deceive, scold, no!—I love, honor, yes!" As Steinthal says in his admirable essay, it is only the certainty which speech gives to a man's mind in holding fast ideas in all their relations which brings him to the shorter course of expressing only the positive side of the idea, and dropping the negative.*

What is expressed by the genitive case, or a corresponding preposition, may have a distinct sign of holding in the gesture-language. The three signs to express "the gardener's knife," might be the knife, the garden, and the action of grasping the knife, pressing it to his breast, putting it into his pocket, or something of the kind. But the mere putting together of the possessor and the possessed may answer the purpose, as is well shown by the way in which a deaf and dumb man designates his wife's daughter's husband and children in making his will by signs. The following account is taken from the "Justice of the Peace," October 1, 1864:

"John Geale, of Yateley, yeoman, deaf, dumb, and unable to read or write, died, leaving a will which he had executed by putting his mark to it. Probate of this will was refused by Sir. J. P. Wilde, judge of the court of probate, on the ground that there was no sufficient evidence of the testator's understanding and assenting to its provisions. At a later date, Dr. Spinks renewed the motion upon the following joint affidavit of the widow and the attesting witnesses: 'The signs by which deceased informed us that the will was the instrument which was to deal with his property upon his death, and that his wife was to have all his property after his death, in case she survived him, were, in substance, so far as we are able to describe the same in writing, as follows, viz: The said John Geale first pointed to the said will itself, then he pointed to himself, and then he laid the side of his head upon the palm of his right hand, with his eyes closed, and then lowered his right hand towards the ground, the palm of the same hand being upwards. These latter signs were the usual signs by which he referred to his own death, or the decease of some one else. He

less fully developed language of signs than that generally used in this country. A pupil in one of our institutions would simply ask, "What did you have for dinner yesterday?" if that was what he wanted to find out.—Ed. Annals.

*Kruse, p. 56, etc. Steinthal, "Spr. der T.," p. 923.

then touched his trousers' pocket, (which was the usual sign by which he referred to his money,) then he looked all round, and simultaneously raised his arms with a sweeping motion all round, (which were the usual signs by which he referred to all his property or all things.) He then pointed to his wife, and afterwards touched the ring-finger of his left hand, and then placed his right hand across his left arm at the elbow, which latter signs were the usual signs by which he referred to his wife. The signs by which the said testator informed us that his property was to go to his wife's daughter, in case his wife died in his lifetime, were * * * as follows: He first referred to his property as before, he then touched himself, and pointed to the ring-finger of his left hand, and crossed his arm as before, (which indicated his wife;) he then laid the side of his head on the palm of his right hand, (with his eyes closed,) which indicated his wife's death; he then, again, after pointing to his wife's daughter, who was present when the said will was executed, pointed to the ring-finger of his left hand, and then placed his right hand across his left arm at the elbow, as before. He then put his forefinger to his mouth, and immediately touched his breast, and moved his arms in such a manner as to indicate a child, which were his usual signs for indicating his wife's daughter. He always indicated a female by crossing his arm, and a male person by crossing his wrist. The signs by which the said testator informed us that his property was to go to William Wigg, (his wife's daughter's husband,) in case his wife's daughter died in his lifetime, were * * as follows: He repeated the signs indicating his property and his wife's daughter, then laid the side of his head on the palm of his right hand, with his eyes closed, and lowered his hand towards the ground, as before, (which meant her death;) he then again repeated the signs indicating his wife's daughter, and crossed his left arm at the wrist with his right hand, which meant her husband, the said William Wigg. He also communicated to us by signs that the said William Wigg resided in London. The said William Wigg is in the employ of and superintends the goods department of the North-Western Railway Company, at Camden Town. The signs by which the said testator informed us that his property was to go to the children of his wife's daughter and son-in-law, in case they both died in his lifetime, were * * * as follows, namely: He repeated the signs indicating the said William Wigg and his wife, and their death before him, and then placed his right hand open a short distance from the ground, and raised it by degrees, and as if by steps, which were his usual signs for pointing out their children, and then swept his hand round with a sweeping motion, which indicated that they were all to be brought in. The said testator always took great notice of the said children, and was very fond of them. After the testator had, in manner aforesaid, expressed to us what he intended to do by his said will, the

said R. T. Dunning, by means of the before-mentioned signs, and by other motions and signs by which we were accustomed to converse with him, informed the said testator what were the contents and effect of the said will."

Sir J. P. Wilde granted the motion.

The deaf-mute commonly expresses past and future time in a concrete form, or by implication. To say "I have been ill," he may convey the idea of his being ill by looking as though he were so, pressing in his cheeks with thumb and finger to give himself a lantern-jawed look, putting his hand to his head, etc., and he may show that this event was "a day behind," "a week behind"—that is to say, yesterday or a week ago, and so he may say that he is going home "a week forward." That he would of himself make the abstract past or future, as the Abbé Sicard has it, by throwing the hand back or forward, without specifying any particular period, I am not prepared to say. The difficulty may be avoided by signing "my brother sick done" for "my brother has been sick," as to imply that the sickness is a thing finished and done with. Or the expression of face and gesture may often tell what is meant. The expression with which the sign for eating dinner is made will tell whether the speaker has had his dinner or is going to it. When anything pleasant or painful is mentioned by signs, the look will commonly convey the distinction between remembrance of what is past and anticipation of what is to come.

[TO BE CONTINUED.]

MRS. MARY B. SWAN.

BY ROSWELL H. KINNEY, M. A., OMAHA, NEB.

[IT has been suggested that the publication in the *Annals* of the following tribute to a well-known and worthy friend of the deaf and dumb, which appeared in the *Mute Journal* of Nebraska for March, 1878, would give pleasure to many of our readers.—ED. ANNALS.]

FAME, as some will have it, is not for those who live, but for the dead. It is not merely popularity; it is not the buzz of the thoughtless, the newspaper puff, nor the grateful flattery of friendship. It is the transfer of a noble spirit into the thoughts and minds of others, and is thus borne down the stream of time into the far distant future. This, as we think, may begin, and be enjoyed, during the life of those who have earned it.

Mrs. Mary B. Swan, for eight years assistant matron in the Ohio Institution for the Deaf and Dumb, at Columbus, and since October, 1863, the efficient head of the domestic department of the Iowa Institution, recently closed her labors as matron, and is now residing with her son at Council Bluffs, who was also connected with the Institution for many years as steward.

Her retirement was the occasion, on the part of the pupils, as an expression of gratitude and love, for the presentation of a beautiful toilet set; and from the other members of the household, officers and teachers, as an appropriate token of their regard, she received an elegant card-receiver, representing a graceful swan.

In the energetic and faithful performance of duty, for nearly a quarter of a century, in these trying departments of labor, she had earned no mean reputation.

Mrs. Swan is a lady by instinct as well as culture, always self-controlled and reasonable, never addressing herself to self, to prejudice, or passion, but to hearts and heads. No wayward impulses could make her forget the dignity of her position, betray her into recklessness of expression, usurpation of authority, or conflict. She understood and respected the relations and rights of her associates and subordinates. Her thoughtful and delicate attention to their interests and happiness won their confidence and lasting esteem.

She was devoted to her work, and prosecuted it with fearless and uncompromising zeal. Feeling right herself, she could see clearly how to settle difficulties and bear petty annoyances with a calm and cheerful spirit. The great object of her ambition was to give pleasure and do good. She strove to make virtue noble, industry desirable, and increase the happiness of deaf-mutes, by developing their capacity to be happy.

In all this work, extending through so many years, she was characterized by an all-pervading fervor, the exquisite fineness and beauty of which threw about her a magic charm that could belong only to a true and noble woman, and aided very much in making the institutions with which she was connected great, grand, and attractive homes.

Thousands of visitors to these institutions retain the most pleasant recollections of the accomplished and refined woman, whose lady-like manners, and unusual conversational powers, made their visit memorable.

With a mother's holy love she devoted a large portion of her life to the welfare, improvement, and exaltation of the deaf and dumb; and although she has retired from active labor, in her dreams of the Better Land, to which she is going, will she not, even in this life, enjoy the blessed consciousness of having touched innumerable human keys that shall cause chords of happiness to vibrate, in ever widening circles, throughout all eternity?

IN MEMORY OF THE LATE JOHN R. BURNET.

BY JAMES NACK, NEW YORK.

[THE following lines, which we take from the *Deaf-Mute's Journal* of February 7, have a double interest for the readers of the *Annals*, as being in memory of one of our former contributors, and the composition of a gentleman who has been profoundly deaf for more than half a century.—ED. ANNALS.]

When the immortal mind escapes
  The bondage of its mortal clay,
To mingle with those heavenly shapes
  That dwell beyond the starry way,
It is not for our happier friend
  That tears of sympathy should flow,
Removed to joys that never end,
  And glories earth can never know.

The wisdom of this world is vain;
  The science vague and incomplete;
The highest knowledge we attain
  Is but a phantom of deceit.
But now the mighty truths he sought
  Are given to his eager mind,
While through the height and depth of thought
  He wanders free and unconfined,

And glides through the unbounded range
  Of countless systems, suns, and spheres—
Would he those glorious heights exchange
  To tread again this vale of tears?
To wish him back would do him wrong;
  Far better seek his path above;
We shall leave this suffering throng
  To greet him with our treasured love.

Yet can we not our loss forget,
  And, as we miss that genial smile,
The parting we may well regret,
  Though it is but a little while.

Oh! ye who mourn your kinsman kind,
Oh! widow, plunged in sorrow deep,
Oh! daughter of his heart and mind—
Weep on! for ye have cause to weep.

Fond sister! in thy olive wreath
What fitting symbols love may trace!
His virtues in the roses breathe,
The daisies tell his modest grace,
The oak leaves as of old declare
A victor in the cause of right—
But, more than conqueror, he shall wear
A crown of everlasting light.

AN INTERESTING CASE OF ARTICULATION AND LIP-READING.

BY THE EDITOR.

THE *National Journal of Education* of May 16, in a commendatory notice of the Normal School of Languages to be held this summer at Grinnell, Iowa, under the direction of Mr. Henry Cohn, principal of the Sauveur School of Languages, Boston, Mass., said:

"We have seen many testimonials of the success which has attended Professor Cohn's labors, but none is more remarkable than that of Miss Salter, of Boston, who is *perfectly deaf*, but who has learned to speak the German language with truly wonderful ease and accuracy by this new method of instruction."

The following letter from Miss Salter, published in Mr. Cohn's prospectus of the Normal School, also came to our notice:

"BOSTON, *April* 9, 1878.

"To Prof. HENRY COHN:

"MY DEAR SIR: Will you kindly permit me to express my earnest appreciation of your truly wonderful success in teaching me the German language by the *Natural Method?*

"I am greatly encouraged to believe that the time is not far distant when I shall be able to enjoy the German literature, without losing any of its spirit—a loss only too often sustained by those who have *Englished* their knowledge of a language in the free use of a dictionary. As I have before told you, I lost my hearing when a very little child. To this day I have been *perfectly* deaf, with no prospect of recovering my loss. Every painful disadvantage has been more than counterbalanced by one blessing—I have always understood any conversation directed to me, by simply watching the motion of the speaker's lips. This, however, referred only to my own—the English

language. That I could be taught a foreign tongue, without dictionary and grammar, but only by watching the lips of a teacher, seemed a herculean task. I determined, however, to make the trial, and the success thus far, where I almost looked for complete failure, is a surprise, both to myself and friends. I attribute it to your uniform patience, your perseverance, and your great kindness. That the *Natural Method* of teaching is admirable, I can honestly say; when I think, that if I—who am perfectly deaf—can have gained in so short a time a good insight into the spirit of the German language, what must it be to those whose hearing is excellent?

"Before closing, I must also thank you for the keener appreciation of the Latin tongue which I have gained while attending your Latin class.

"In all gratitude, your pupil,

"EDITH AGNES SALTER."

The newspaper paragraph above quoted, and still more the letter that follows it, made us desire to ascertain something further about this lady; and as we had the pleasure of Mr. Cohn's acquaintance, and knew him to be intelligent and trustworthy, we wrote him a note inquiring at what age Miss Salter lost her hearing; at what school, if any, she had received her education in the common English branches, and how well she could articulate and read the lips; also asking permission to publish the facts, if we saw fit, in the *Annals*. With regard to her articulation, Mr. Cohn replied that it was clear and distinct, and that her voice was natural and pleasant to hear; with respect to the other points of inquiry, he referred us to the following very interesting letter written by Miss Salter herself:

"1 STANIFORD STREET,

"BOSTON, *May* 23, 1878.

"MY DEAR PROFESSOR COHN: I am very glad that you sent me Mr. Fay's letter, and I will willingly answer his questions. I prefer, however, to state the facts he desires in a letter to you. But as I put nothing of a private nature here, you are at liberty to forward this communication to him should you so desire.

"Upon my recovery from scarlet fever, at five years of age, it was found that I was partially deaf—not, however, inconveniently so—and, I am told, I was gradually recovering, when, in consequence of a severe attack of typhoid fever at ten years of age, I became in less than a year perfectly deaf. I myself, however, do not remember any difference, as regards my hearing, before the fever and to-day. I am not even conscious of

any change; for, in a most remarkable manner, which I can only attribute to the great kindness of a wise Providence in my behalf, I found myself able to understand perfectly by watching the motions of the speaker's lips. I cannot recall when I first began to do so. I do not think my friends even remember it. It came, naturally, without an effort on my part, and might, indeed, be called *an instinct—a gift.* I ought to say, it has been a great blessing of God; for not once have I felt the necessity of hearing, unless, indeed, the lack of hearing has caused me harder study and double difficulty in learning the pronunciation of a foreign language. This, however, is a small matter, and has its advantages in giving greater concentration to the mind.

"Before becoming perfectly deaf, I had, of course, learned to read. But my education, so called, did not really begin till after the typhoid fever. The previous year I had been placed at a private school in this city. When I resumed my studies, so far as I remember, all went on the same. In thinking it over, however, I suppose that to my teachers there was a change. I seemed to them to have no power over my voice, and I could not pronounce well, especially as regards French and Latin.

"At thirteen years of age my parents sent me to a day academy in this city, conducted by the Roman Catholic Sisters of Notre Dame. (We had then left the Episcopal Church, and had become Roman Catholics.) I was treated in no way different from the other girls, excepting, perhaps, that due allowance was made for my not hearing the bells. I stood up with the other members of my class, at the further end of the class-room, and joined in the recitations with perfect ease. Indeed, I have been told that strangers thought my hearing quicker than the others, and great surprise was always expressed at my being perfectly deaf—all the more so as my voice was now rapidly becoming clear and strong.

"And here I may be permitted to pay a loving tribute to my dear mother, whose patient, persevering efforts have, under God, been the sole means of preventing me from losing my voice entirely, and speaking in the mumbled tone of a deaf person. The habit, long existing in our family, of the members taking turns in loud reading, greatly assisted this; and as, for the past seven years, I have been the 'loud reader' every evening, I feel that I cannot be grateful enough to my good

mother, inasmuch as I talk naturally, and am not troublesome to my friends. Thus, you see, my deafness has been in no wise a burden. I completed my course of study in four years; passed an oral examination, and graduated (may I say it, even if it be not for me to do so?) with honor.

"Since leaving school I have carried on my studies at home, with occasional help from friends. My Latin, which was dropped at twelve years of age, was resumed at nineteen, under the guidance of a kind friend, who drilled me thoroughly in pronunciation. My French has suffered, my pronunciation being simply 'horrible.' I can, however, read with pleasure, and now, at twenty-three years, I have commenced German. To be honest, I have shed not a few *internal tears* at the difficulties. Learning a foreign language by watching the speaker's lips seemed a herculean task. But you have been so uniformly kind and patient, and have encouraged me so much, that to-day I am determined to persevere, in hopes not alone of being able to 'speak the German language with truly wonderful ease and accuracy,' as the *Journal of Education* so amusingly puts it, but also to do you, my kind friend and master, credit.

"I am afraid that Mr. Fay will verily consider this a deaf girl's letter indeed, but it was difficult for me to express myself in fewer words, never before having been called upon for anything of the kind. I would add that I have had no difficulty whatever in travelling alone or dealing with business people. In fact, many of my friends do not know, or cannot realize, my perfect deafness. I am called a *humbug*, (first-class,) and, in very truth, rarely am obliged to use the deaf '*what?*'

"I am much interested in what I am told of others being *taught* what is *natural* to me—*i. e.*, understanding by lip-motion. I have, however, never even visited a deaf-mute school, and know nothing of the method.

"I would say, in conclusion, that Mr. Fay may feel at perfect liberty to do as he pleases with this communication.

"Very sincerely and gratefully,

"EDITH AGNES SALTER."

We are sure the perusal of this letter will give our readers the same pleasure that we have received from it, not only because it describes a remarkable instance of success in articulation and lip-reading—the former acquired at the cost of little labor in comparison with what is usually necessary, and the

latter a rare natural gift—but also because of the beautiful spirit of cheerful contentedness which it manifests, and the loving gratitude it expresses alike for the earthly mother to whom its writer feels that she owes so much, and for the Heavenly Father who doeth all things well.

THE EXAMINATION OF TEACHERS IN HANOVER.

BY THE EDITOR.

About four years ago a conference was held between the principals of the institutions for the deaf and dumb in the province of Hanover and the provincial directory, on the subject of securing capable and well-trained instructors for these institutions. The principals desired that a training school for teachers should be established, and urged its importance upon the directory. The directory, while admitting the advantages to be derived from such a school, felt that it did not belong to a single province like that of Hanover to establish and maintain it, but said they would be glad to co-operate with the other states of Germany in any effort that might be made in that direction. In the mean time, in order to increase the efficiency of the several corps of instructors so far as lay in their power, they adopted a set of regulations with regard to all future appointments to the position of teacher.

According to these regulations, every person desiring to become a teacher in any institution in the province—unless he had had at least three years' experience in some other institution—was to undergo a probation of not less than three years, during which time he was to be trained in the theory and practice of the art of deaf-mute instruction under the direction of the principal—or, as our German friends say, director—of the institution in which he hoped for an appointment. At the end of the probation, before being admitted to the rank of teacher, he was to receive a rigid examination, written and oral, from a commission, consisting of the director of a gymnasium as chairman, the director of the institution where the candidate had been under training, and the director of another institution in the province, to be designated by the provincial directory. Finally, the report of the commission was to be submitted to the provincial directory, and adopted or rejected by that body.

The first examination under this system took place recently at the Stade Institution, and is described in the *Organ* for March and April last. The candidate had completed the three years' probation. Some time previously, Director Gude, of the Stade Institution, had submitted to Director Rössler, of the Osnabrück Institution, who had been appointed the professional associate in the examination, three subjects relating to deaf-mute instruction, one of which was to be selected by the latter, and given to the candidate as the topic for a thesis. The subject chosen was "a parallel between the courses of instruction in articulation of Hill and Schöttle, in which it is to be considered whether, and if so, in what respect, Schöttle's method is an improvement upon Hill's." For the preparation of the thesis the candidate was allowed eight weeks On its completion, it was submitted first to the non-resident director for his approval or disapproval, then to the resident director, and finally to the gymnasial director. This constituted the written examination.

In accordance with the regulations of the provincial directory the oral examination was to be three hours long, and at its close the candidate was to be subjected to the practical test of giving a lesson to one of the classes of the Institution in the presence of the commission.

The oral examination, which was conducted by the two directors taking topics in turn, consisted of questions upon the nature of the deaf-mute, including the causes of deafness, and the results and influence of this defect upon the physical and mental condition of its subject, especially with reference to his modes of thought and forms of expression; the object and scope of deaf-mute instruction, and the means necessary to its successful accomplishment; the formation of the organs of speech, and the relation of the utterance of sound to certain principles of physiology; the logical and psychological foundations of the method of instruction; the application of the principles of teaching in general to the teaching of deaf-mutes; the best plan of organization for an institution; the leading events in the history of the education of the deaf and dumb, and the principal works on the art of deaf-mute instruction.

At the close of the examination in each topic the candidate left the room, and the members of the commission voted upon the results of that examination before proceeding to the next topic.

One of the teachers of the Institution acted as secretary, and kept as full a record as possible of the questions of the examiners, and the whole course of the examination. This paper was afterwards signed by the three members of the commission, and submitted to the provincial directory.

The final test of the candidate was the lesson to a class in the presence of the commission. The choice of the subject of the lesson, and of the class which was to receive it, was left to the non-resident director.

The results of the examination, as a whole, having been reported as satisfactory to the provincial directory, and approved by that body, the candidate was soon afterwards regularly installed as a teacher in the institution at Stade.

Substantially the same regulations as those above described have been adopted by the authorities of the province of Schleswig-Holstein.

Several articles recently published in the *Annals* have expressed a feeling which, from the comments that have reached us on the subject, we judge is general in the profession, viz., that by means of a national training school, or, if that is not practicable, by "a normal school on a small scale" in each institution, teachers ought to have the opportunity to fit themselves for their work in some other way than at the expense of an unfortunate group of pupils, and that they ought not to be charged with the weighty responsibility of the sole instruction of a class, especially of a class of beginners, until they are fitted for it. Cannot we learn something in this respect from the example of our German brethren?

INSTITUTION STATISTICS OF DEAF-MUTISM.

BY THE EDITOR.

Several institution reports this year give statistical items for the first time; we trust the day is not distant when all will do so, for the larger the numbers covered by the statistics the greater their value. The report of the Clarke Institution this year is worthy of special commendation for the fulness of its statistics and the manner in which they are presented.

The total number of cases comprised in the reports before us is 4,338; the number considered in the *Annals* last year (page

240) was 4,345; as less than 2,000 cases in any of their phases are common to the two articles, it will be of interest to compare them in some respects. We are indebted to Mr. S. M. Freeman, a student in the National Deaf-Mute College, for assistance in collating these statistics and for their reduction to decimals.

CAUSES OF DEAFNESS.

The American, Ohio, Clarke, Horace Mann, and Halifax reports give the causes of deafness, so far as ascertained, of all the pupils who have been educated in those institutions; the report of the New York Institution for Improved Instruction gives the same statistics of the pupils present during the past year; and the Pennsylvania, Iowa, and Minnesota reports, of the new pupils admitted during the year. These make a total of 4,338 cases, of which the assigned causes of deafness are as follows:*

	Number.	*Ratio.*		*Number.*	*Ratio.*
Congenital	1,737	.401	Quinine	6	.001
Scarlet fever	581	.134	Small-pox	6	.001
Cause not ascertained	311	.071	Rickets	5	.001
Sickness (not specified)	259	.060	Croup	5	.001
Cerebro-spinal meningitis	256	.059	Chicken-pox	5	.0011
Brain fever	194	.045	Worms	3	.0006
Sores in head	187	.043	Ague	3	.0006
Fever (not specified)	112	.026	Palsy	3	.0006
Measles	110	.026	Inflammation	2	.0005
Accidents	91	.021	Cholera infantum	2	.0005
Typhoid fever	77	.018	Yellow fever	2	.0005
Whooping-cough	67	.016	Dysentery	2	.0005
Colds	66	.015	White swelling	2	.0005
Fits	41	.010	Rheumatism	2	.0005
Hydrocephalus	35	.008	Fright	2	.0005
Scrofula	27	.006	Calomel	2	.0005
Pneumonia	22	.005	Bathing	2	.0005
Diphtheria	18	.004	Humor	2	.0005
Teething	14	.003	Scalds	2	.0005
Erysipelas	10	.002	Sunstroke	1	.0002
Paralysis	9	.002	Influenza	1	.0002
Spasms	9	.002	Neuralgia	1	.0002
Diseases of the ear	8	.002	Bronchitis	1	.0002
Bilious fever	8	.002	Cruelty	1	.0002
Congestive fever	8	.002	Lightning	1	.0002
Catarrhal fever	8	.002	Gout	1	.0002
Mumps	7	.001	Irites	1	.0002
Whole number of cases				4,338	1.0000

The statistics this year extend over a longer period than last year, inasmuch as all the pupils of the American Asylum, our oldest institution, are included; cerebro-spinal meningitis, there-

* In compiling the table some slight changes in nomenclature have been made for the sake of uniformity.

fore, takes a lower place in the list of the causes of deafness, and the proportion of congenital cases is somewhat increased.

AGE WHEN DEAFNESS OCCURRED.

All the above-named reports, except those of the Pennsylvania Institution and Horace Mann School, give the age when deafness occurred, as follows:

	Number.	*Ratio.*
Congenital	1,692	.443
Became deaf during 1st year	504	.132
" " 2d "	528	.138
" " 3d "	394	.103
" " 4th "	220	.058
" " 5th "	165	.043
" " 6th "	103	.027
" " 7th "	66	.017
" " 8th "	58	.015
" " 9th "	26	.007
" " 10th "	17	.005
" " 11th "	16	.004
" " 12th "	11	.0027
" " 13th "	6	.0015
" " 14th "	6	.0015
" " 15th "	3	.0008
" " 16th "	2	.0005
" " 17th "	2	.0005
" " 18th "	2	.0005
Whole number of cases	3,821	1.0000

CONSANGUINITY OF PARENTS.

The Pennsylvania, Clarke, Western Pennsylvania, and Halifax reports give statistics concerning the consanguinity of the parents of pupils, as follows:

	Families.	*Deaf-Mutes.*	*Ratio of Families.*	*Ratio of Deaf-Mutes.*
Parents first cousins	30	64	.096	.164
" second "	11	24	.035	.061
" second and third cousins.	1	2	.003	.005
Distantly related	17	33	.054	.085
Not related	252	267	.812	.685
Whole number of cases	311	390	1.000	1.000

The whole number of cases here considered is about one-third the number treated in our statistics last year; while the ratio of families containing deaf-mutes whose parents were first cousins is twice as great, and that of the deaf-mutes themselves four times as great. Twenty-five out of the 30 families, containing 53 of the 64 deaf-mutes whose parents were first cousins, belong to the Halifax Institution, the total number of whose pupils has been only 224. This striking excess in the relationship of parents among the pupils of the Halifax Institution, over those of the other institutions of which we have statistics, is

doubtless due to the fact that the marriage of near kin has prevailed to a far greater extent in the British maritime provinces than in the United States. But with respect to neither the British Provinces nor the United States do we possess the factor essential to the determination of the question whether such marriages are, or are not, a cause of deaf-mutism, viz., the extent to which relatives intermarry. See the *Annals*, vol. xxi, page 208.

The report of the Clarke Institution distinguishes between the congenital and adventitious cases of deafness, as follows:

"Of the 6 deaf-mutes whose parents were first cousins, 1 was congenital.

"Of the 4 deaf-mutes whose parents were second cousins, 3 were congenital.

"Of the 5 whose parents were less related, 0 were congenital.

"Of the 117 whose parents were *not* related, 19 were congenital.

"The 13 cases where parents state that deafness occurred before two years of age and the cause was unknown, were probably cases of congenital deafness. Only two of this number had parents who were related.

"Classing these 13 cases with the 23 congenital, only 6 of the number had parents who were related."

The Halifax report also makes the distinction between congenital and non-congenital cases, as is shown in the following table:

	Families.	*Deaf-Mutes.*	*Congenital.*	*Non-Congenital.*
Parents first cousins.....	25	53	46	7
" second "	8	16	12	4
" otherwise related.....	12	22	18	4
" not related.....	75	98	55	43
	120	189	131	58
No information on consanguinity	30	35*	18	15
Totals.....	150	224	149	73

The statistics of the Pennsylvania Institution show in a very striking manner the importance of distinguishing between the number of deaf-mutes who are the children of consanguineous marriages, and the number of families from which they come. Among the 316 pupils of that Institution, only three cases of consanguineous parents are to be found, one of which was of first cousins, another of second cousins, and a third of distant

*Among these there are two or three doubtful cases which cannot be classified, but they were probably all congenital.

relatives; yet these three marriages have produced *fifteen* deaf-mutes: four being the children of the first cousins, five of the second cousins, and six of the distant relatives.

HEREDITARY DEAFNESS.

The American, Pennsylvania, Clarke, Western Pennsylvania, and Halifax reports give the number of children one or both of whose parents were deaf and dumb:

	Children Deaf-Mutes.	*Ratio.*
Both parents deaf-mutes	35	.014
One parent "	20	.008
Neither parent "	2,501	.978
Whole number	2,556	1.000

The number of cases is much larger than in our statistics of last year, and none of them are the same. The ratio of the deaf-mute children of deaf-mute parents is considerably increased, being nearly double for both parents deaf-mute, and four times as great for one parent deaf-mute. Even here the ratio seems at first glance very small, and we must warn our readers against the hasty conclusion—which seems to have been reached by the writers in some of the deaf-mute papers who commented on our statistics last year—that this ratio represents the proportion of deaf-mute children likely to result from the marriage of deaf-mute parents. In order to ascertain that fact from these statistics it would be necessary to know the percentage of deaf-mute marriages to all marriages—which of course is exceedingly small—and then to compare the proportion of deaf-mute children. Inquiries made by Dr. W. W. Turner, of Hartford, among the married graduates of the American Asylum, and described in his paper on "Hereditary Deafness," read before the Washington Conference of Principals, showed that in 24 families in which both parents were congenital deaf mutes there were 57 children, of whom 17, or about one-third of the whole, were deaf-mutes; and that in 86 families, in which one parent was a congenital deaf-mute, there were 218 children, of whom 21, or about one-tenth, were deaf-mutes. Nine of the 24 families first named contained one or more deaf-mutes, and the same is true of 9 of the 86 families in which one parent was a congenital deaf-mute. These proportions are certainly such as fully to justify Dr. Turner, Dr. E. M. Gallaudet, and Dr. I. L. Peet in their disapproval of the marriage of two congenital deaf-mutes with each other.

DEAF-MUTES IN FAMILIES.

The Pennsylvania, Clarke, Western Pennsylvania, and Halifax reports give the number of families from which pupils come:

	Families.	*Deaf-Mutes.*	*Ratio of Families.*	*Ratio of D'f-Mts.*
Families containing 6 deaf-mutes.....	1	6	.003	.015
" " 5 "	6	30	.021	.074
" " 4 "	8	32	.028	.080
" " 3 "	14	42	.048	.104
" " 2 "	33	66	.114	.164
" " 1 "	227	227	.786	.563
	289	403	1.000	1.000

The hereditary tendencies of deaf-mutism are also shown in the large number of deaf-mute relatives, more or less remote, that are reported.

Of the 2,109 pupils of the American Asylum, the following have had deaf-mute relatives:

6 pupils had	father and mother.....	deaf and dumb
136 "	one brother.....	" "
27 "	two brothers.....	" "
6 "	three brothers.....	" "
3 "	four brothers.....	" "
1 pupil had	five brothers	" "
125 pupils had	one sister.....	" "
34 "	two sisters.....	" "
3 "	three sisters	" "
1 pupil had	four sisters.....	" "
47 pupils had	one brother and one sister.....	" "
11 "	one brother and two sisters....	" "
8 "	one brother and three sisters...	" "
32 "	two brothers and one sister	" "
9 "	two brothers and two sisters...	" "
10 "	three brothers and one sister...	" "
2 "	three brothers and three sisters.	" "
7 "	four brothers and two sisters...	" "
2 "	five brothers and one sister.....	" "
1 pupil had	parents and one brother	" "
1 "	mother and one brother.....	" "
2 pupils had	parents and two sisters.....	" "
4 "	parents, one brother, and one sister.....	" "
1 pupil had	parents, one brother, and two sisters	" "
1 "	parents, two brothers, and one sister	" "
1 "	father, one brother, and one sister.....	" "
2 pupils had	mother, one brother, and one sister	" "

3 pupils had parents, two brothers, and two uncles ..... deaf and dumb
1 pupil had parents, two sisters, and one uncle ..... " "
1 " mother, one brother, and two sisters ..... " "
1 " mother, two brothers, and one sister ..... " "
1 " parents, one brother, and five uncles and aunts ..... " "
1 pupil had father, three brothers, one sister, and one cousin ..... " "
2 pupils had father, four brothers, one sister, and one cousin ..... " "
1 pupil had father, two sisters, and other relatives ..... " "
2 pupils had father, one brother, one sister, and one cousin ..... " "
1 pupil had father, sister, son, two nephews, and five other relatives ..... " "
2 pupils had mother and one uncle ..... " "
1 pupil had mother and two uncles ..... " "
1 " parents, grandfather, and other relatives ..... " "
1 " grandfather, father, and one brother ..... " "
1 " grandfather, father, and one sister ..... " "
1 " grandfather, father, and other relatives ..... " "
2 pupils had parents, one brother, one sister, and one uncle ..... " "
1 pupil had father, one brother, one sister, and one cousin ..... " "
1 " parents, and one cousin ..... " "
6 pupils had one brother, one sister, and one cousin ..... " "
2 " one brother, two sisters, and two cousins ..... " "
1 pupil had one brother, one sister, and three cousins ..... " "
1 " one brother, one sister, and one second cousin ..... " "
1 " one brother, one sister, and two second cousins ..... " "
1 " one brother, two sisters, and two children ..... " "
1 " one brother, two sisters, and five children ..... " "
1 " two brothers, two sisters, and eleven other relatives ..... " "

2 pupils had two brothers, one sister, and two cousins ..... deaf and dumb
1 pupil had two brothers, two sisters, one uncle, and one aunt ..... " "
1 " three brothers, one sister, and two second cousins ..... " "
1 " one brother and one daughter .. " "
1 " one brother and one son ..... " "
1 " one brother and two children ... " "
1 " one brother and three children .. " "
1 " one brother and five children ... " "
1 " two brothers and five children .. " "
1 " one brother, three children, and one cousin ..... " "
4 pupils had one brother and one cousin ..... " "
2 " one brother, four cousins, and other relatives ..... " "
1 pupil had one brother and three cousins .. " "
2 pupils had one brother and two nephews .. " "
1 pupil had one brother and one niece ..... " "
1 " one brother and one aunt ..... " "
1 " one brother and other relatives . " "
1 " one brother and seven relatives. " "
2 pupils had two brothers, two uncles, and two cousins ..... " "
4 " two brothers and one cousin ... " "
3 " one sister and one child ..... " "
1 pupil had one sister and one uncle ..... " "
1 " one sister and one aunt ..... " "
1 " one sister, two aunts, and other relatives ..... " "
1 " one sister, one uncle, and one cousin ..... " "
7 pupils had one sister and one cousin ..... " "
1 pupil had one sister, one uncle, and six cousins ..... " "
1 " one sister and three cousins .... " "
1 " one sister and four cousins ..... " "
2 pupils had one sister and other relatives ... " "
1 pupil had one sister and four other relatives ..... " "
1 " one sister and seven other relatives ..... " "
2 pupils had one sister and fourteen other relatives ..... " "
1 pupil had two sisters and one child ..... " "
7 pupils had two sisters and one cousin ..... " "
1 pupil had two sisters and two cousins .... " "
1 " two sisters and one second cousin " "
2 pupils had two sisters and two second cousins ..... " "

1 pupil had two sisters and three second cousins ..... deaf and dumb
6 pupils had one son ..... " "
1 pupil had one child and one cousin ..... " "
3 pupils had three children ..... " "
1 pupil had three children and one cousin ... " "
1 " four children ..... " "
1 " one aunt and one uncle ..... " "
7 pupils had one uncle ..... " "
3 " one aunt ..... " "
1 pupil had two uncles ..... " "
1 " one uncle and one cousin ..... " "
1 " two uncles and three cousins ... " "
1 " one aunt and two cousins ..... " "
1 " three great uncles and three cousins ..... " "
1 " one nephew ..... " "
2 pupils had one niece ..... " "
21 " one cousin ..... " "
4 " two cousins ..... " "
4 " three cousins ..... " "
2 " four cousins ..... " "
2 " cousins ..... " "
7 " one second cousin ..... " "
3 " two second cousins ..... " "
1 pupil had one third cousin ..... " "
1 " one relative ..... " "
2 pupils had two relatives ..... " "
1 pupil had four relatives ..... " "
1 " six relatives ..... " "
2 pupils had relatives ..... " "
4 " remote relatives ..... " "

Of the 67 new pupils admitted into the Pennsylvania Institution, besides the immediate relationships included in the tables above given—

1 pupil had one uncle and one aunt ..... deaf and dumb
1 " one aunt ..... " "
1 " two cousins ..... " "
1 " one cousin ..... " "

Of the 224 pupils of the Halifax Institution, besides the immediate relationships included in the tables above given—

5 pupils had two cousins ..... deaf and dumb
2 " three cousins ..... " "
1 pupil had six cousins ..... " "
1 " one cousin ..... " "
1 " one second cousin ..... " "
1 " two second cousins ..... " "
1 " five second cousins ..... " "

3 pupils had father partially deaf.
3 " brother or sister partially deaf.
1 pupil had one sister blind.
2 pupils had one brother imbecile.
1 pupil had one grand-uncle deaf.
1 " two grand-aunts deaf.
1 " maternal great-grand-uncle deaf.
1 " distant relative deaf.
1 " relative partially deaf.
1 " several relatives, more or less distant, deaf and dumb.
1 " three cousins cripples.
1 " deaf and dumb in the connection three generations back.

INSTITUTION ITEMS.

BY THE EDITOR.

Pennsylvania Institution.—Mr. Abram N. Pratt, having resigned the position of teacher on account of his health, is succeeded by the Rev. J. H. Pettingell, formerly of the New York Institution. Mr. Pettingell has recently published a large octavo volume of 320 pages, which has cost him much labor in its preparation and will be of great service to clergymen and Bible students generally, entitled "Homiletical Index: a handbook of texts, themes, and authors." It embraces 20,000 citations of scripture texts, and of discourses founded thereon, arranged by texts and by topics. The book is published by D. Appleton & Co., New York.

Mr. A. L. Pettingell was married June 18 to Miss Emma V. Stevenson, of Philadelphia.

Ohio Institution.—The present board of trustees has unanimously reappointed Mr. Fay superintendent; it has also appointed Mr. H. C. Filler as steward, and Dr. N. C. Coleman as physician, to enter upon their duties the 1st of July. The present corps of teachers has been confirmed for the coming year.

Illinois Institution.—Vague and unsupported accusations of excessive charges in the matter of clothing furnished the pupils, etc., were made against the superintendent in some of the Chicago papers a few weeks ago, but they were promptly met by a denial and explanation from Dr. Gillett, and after

investigation by the board of trustees were declared to be without foundation. An examination of the accounts of all the charitable institutions of the State has been ordered by the Governor. Dr. Gillett is so sure of the correctness of those of the Illinois Institution, and of his own integrity in respect to them, that he has gone to Europe for his health, in accordance with previous plans, leaving the examination to be made in his absence. We are confident that the result will be to establish unquestionably his honesty and uprightness, of which, indeed, none who know him have ever had any doubt.

Wisconsin Institute.—Serious charges were made two months ago affecting the moral character of the principal and steward in respect to their relations with some of the female pupils and teachers. The charges were brought by Mr. C. L. Williams, a former teacher, and were circulated widely through the public press. Preliminary inquiries made by the board of trustees of the Institute convinced them that the charges were malicious in aim and without real foundation, but on account of the manner in which they were thrown before the public, they requested the Governor to order a thorough investigation by the State Board of Charities. That investigation is nearly completed, and the issue, which we hope and trust will confirm the conclusions of the trustees, will soon be published. No newspaper reports have been allowed to be published during the progress of the investigation.

West Virginia Institution.—The examinations at the close of the year were conducted by President Gallaudet, Dr. J. C. M. Merillat, formerly principal of the Virginia Institution, and the Rev. G. W. Finley, of Romney. This committee reports very favorably upon the progress of the classes and the condition of the Institution.

Western New York Institution.—The Institution has secured a lease for five years at a nominal rent of a valuable property belonging to the city, formerly known as the Children's Home. It contains 7½ acres of land, with a large main building, erected about ten years since, which has given accommodation to 95 pupils; also, a school building and shop; all these are of brick. A large frame building, once used for a hotel, will serve the purpose of a laundry, and furnish rooms for servants. A good

barn, carriage-house, and out-buildings complete the equipment of buildings. The system of drainage is complete and perfect. The property has cost the city $81,000, although its present valuation is rated by the assessors at $40,000. The location, seven hundred yards below the "lower falls," on the east side of the Genesee river, is beautiful and picturesque. During the 12 years it has been used as a "Children's Home" there has never been any serious contagion among the inmates, and but one death, although during that time over 1,200 children have been cared for in the establishment. This certainly speaks well for the healthfulness of the location.

The domestic arrangements will be under the care of Mr. and Mrs. Whitman. Mr. Whitman, who has had experience in managing shops of his own, will take charge of the buildings and grounds; while Mrs. Whitman, who was for 16 years matron of the Ohio Institution, will give the Institution the benefit of her experience in the charge of the girls and in the domestic management.

Mr. Westervelt does not expect to be able to accommodate the entire family of the Institution at this place. As many of the present buildings as necessity seems to require will be retained. The houses are two miles apart, but will be connected by telephone. The offices of the Institution will remain, as heretofore, at No. 70 South Saint Paul street, in the centre of the city.

National College.—On Presentation Day, besides the address of President Gallaudet, published in the present number of the *Annals*, and the orations of the candidates for degrees, addresses were delivered by General J. A. Garfield, of Ohio, and Hon. W. E. Niblack, of Indiana. At the close of the term the degree of B. A. was conferred upon Samuel M. Freeman, Frank R. Gray, Delos A. Simpson, and Frank C. Holloway, who had passed through the full college course, and the honorary degree of M. A. upon Otto F. Kruse, the most distinguished deaf-mute of Germany, of whom a biographical sketch was published in the last volume of the *Annals*, p. 157.

Halifax Institution.—Mr. J. Scott Hutton, who founded the Institution twenty-one years ago, and has labored faithfully in its interests during this period, has resigned the position of principal and accepted that of vice-principal of the Ulster (Ire-

land) Institution. He leaves Halifax the present month. While we are sorry to lose so able and valuable a man from the ranks of our American instructors, we do not look on him as a deserter, for the noble work in which he will engage in his native land is one and the same with ours; and we trust that there he will find a yet wider field of labor and influence than here.

Mackay Institution.—The new building—the munificent gift of Joseph Mackay, Esq., of which a description and picture were given in the last volume of the *Annals*, page 193—was formally opened on the 12th of February last, in the presence of the Governor-General of Canada and Lady Dufferin, the Lieutenant-Governor of Quebec, the Metropolitan of Canada, the principal of McGill University, and other distinguished guests. Addresses were made by Mr. Mackay, Mr. Charles Alexander, president of the Institution, the Governor-General, and others.

London Asylum.—Mr. Watson has resigned the position of head-master.

MISCELLANEOUS.

BY THE EDITOR.

The Turkish Grand Vizier and his Deaf-Mute Servants.—It is said that the servants employed by the Grand Vizier of Turkey in cabinet meetings, and on other occasions where secrecy is desired, are all deaf-mutes, but that even this precaution does not suffice to guard the secrets of state. The German *Organ* quotes from a newspaper the following paragraph from the letter of a Constantinople correspondent:

"Even the deaf-mutes who, as servants of the Grand Vizier, are present at the councils of the minister, know how to express by pantomime what decisions have been reached. I was present not long ago when one of these deaf-mutes wished to say that the Porte had resolved upon the equalization of the Christians and Turks. He first made a cross by laying one of the fingers of one hand upon one of the fingers of the other, signifying the Christians. He then formed a crescent with the thumb and forefinger, which represented Islam; and finally moved his open palm in a horizontal direction in front of himself, to indicate the equalization. Those who are accustomed to converse with these deaf-mutes really believe that they obtain state secrets from them. From the young deaf-mute who is present at the most secret sessions of the ministerial councils, and whose father, also a deaf-mute, held the same position be-

fore him, it is said that the information has been obtained that only the Grand Vizier, the minister of foreign affairs, the minister of the interior, and the minister of war, know the conditions of peace. He represents the Grand Vizier by the signet ring that he wears on his finger, the minister of war by the closed fist, etc."

Ekbohrn's Sketch of Gallaudet.—Our Copenhagen contemporary, the *Nordisk Tidsskrift for Blinde-, Dovstumme-, og Aandsvageskolen*, vol. x, no. 4, contains an excellent biographical sketch of the Rev. Dr. Thomas Hopkins Gallaudet, from the pen of Mr. Kierkegaard Ekbohrn, senior instructor of the Royal Institution at Stockholm, and recently appointed honorary secretary of the King of Sweden. The same sketch is to appear in one of the illustrated papers of Stockholm, and an abstract of it will be given in the great Swedish encyclopædia now in the course of publication under the editorship of Dr. Linda. Mr. Ekbohrn writes of the noble pioneer of deaf-mute instruction in America with the enthusiastic admiration which is justified by the benevolent life and pure character of the subject of his eulogy.

Van Praagh on Oral Education.—Mr. William Van Praagh, director of the "Association for the Oral Instruction of the Deaf and Dumb," read a paper before the Teachers' Conference, January 19, 1878, which was afterwards published in the *Journal of Education*, and has been reprinted in pamphlet form. In it he gives the following outline of the method of instruction pursued in his school:

"Deaf children are taught to produce sound by imitation. Sound, when produced, causes vibration in our body; this vibration can be felt—at the top of the head, epiglottis, chest, etc. The child is taught how to breathe properly, to imitate the position of the teacher's mouth and face, and the vibrations above referred to. As soon as a sound is produced, it is practised repeatedly, until the child can reproduce it without aid. At first we teach vowels, afterwards consonants; combine the vowels and consonants into syllables and words, the meanings of which are illustrated either by showing the objects they represent, or by models and pictures. The children must make use of the spoken words as soon as possible, but are allowed—as hearing children—to make use of one word for a sentence; for example, 'water,' for 'give me water,' but must dispense with the natural signs. Now we proceed to polysyllables and short simple sentences. Without teaching the terminology of grammar, we call the children's attention to the qualities, quantities, and actions of objects taught, and proceed, gradually in-

creasing their knowledge of language, until they are able to use the dictionary, and express themselves in oral and written language. The instruction in speaking, lip-reading, writing, and reading, is always given hand in hand, and is never separated. The teacher speaks, the child imitates, (lip-reads;) the teacher writes, the child imitates (writes) and reads. Teachers must be careful and proceed slowly. This is a rule for general teaching; but teachers of the deaf must be more cautious still. No leaping forward, but steady progress. It is not a question of quantity, but a question of quality. If the instruction be not thorough, the teacher will be sadly disappointed at the results. So much has lately been said about spelling 'reform,' but, according to my humble opinion, we require a modification, or rather simplification, in the mode of teaching spelling. We follow the pure phonetic system. We only give the children the sound of the consonants—a murmur or a hiss as the case may be—but never mention the names of the letters. *B u t*, as seen on the lips, would always remain to the deaf child *beauty*, and never *but*. * * *

"The German or oral system considers the spoken word as a means of instruction, and, consequently, teaches only the spoken and written languages. It uses in the first degree natural signs, which must soon be abandoned, and limited to the same amount of natural signs which hearing persons use in conversation. It rejects the use of all artificial signs and the finger alphabet.

"We teach writing and reading simultaneously; we give our children lithographed instead of printed type, which facilitates the progress and saves an enormous deal of time. This may be adopted with great advantage by teachers of hearing children."

Articulation in England.—On the 16th of April an influential assembly met at the Buckingham Palace Hotel in the interests of the Training College for Teachers, established by B. St. John Ackers, Esq. The Bishop of Sydney presided. Miss Hull was present with two of her pupils, and gave a practical illustration of her success in teaching articulation and educating the deaf. Addresses advocating the oral method of instruction were made by Mr. Ackers and by Professor A. Graham Bell. The latter said that "the sign system, by giving to the deaf a language different from that of others, tended to separate them from the rest of the community, the result being that they intermarried among themselves, thus propagating their physical defect. The tendencies were the reverse under the other system." It is our impression, derived from the German papers devoted to the deaf and dumb, and from our own observation, that the articulation-taught deaf-mutes of Germany intermarry

less with hearing and speaking people than the deaf-mutes of this country educated under the sign system; and that the proportion of those in Germany who marry deaf-mutes, to the whole number who marry at all, is fully as great as in America. Certainly, the numerous deaf-mute associations and newspapers of Germany indicate the same tendency to segregation that exists here. Mr. Bell spoke of the College at Washington as a recognition on the part of the American people that the deaf, instead of being mentally inferior to others, are capable of the highest education and culture.

Inventions in Aid of the Deaf.—The New York *Tribune* of May 15, speaking of the wonderful genius who has given us the phonograph, the carbon telephone, the electric pen, and numerous other ingenious and useful inventions, mentions the following fact of interest to the deaf. As Mr. Edison himself is very hard of hearing, the needs of this class of persons have a special claim upon his attention:

"Mr. Edison says he has set two of his most skilful assistants at work testing his ideas in regard to an apparatus for the deaf. The many letters he has received on the subject of such an apparatus convince him that the demand for it will be enormous. He feels sure that he can produce a practical one within three months."

Deaf-Mute Reunions.—The "Proceedings of the Third Reunion of the Ohio Deaf-Mute Alumni Association, held at the Institution, Columbus, Ohio, August 27, 28, and 29, 1875," and the "Proceedings of the Deaf-Mute Reunion at the Institution for the Deaf and Dumb, Jacksonville, Ill., September 6 to 10, 1877," have been printed in pamphlet form, the former by Nevins & Myers, Columbus, and the latter at the press of the Illinois Institution. At both these gatherings there were excellent orations and other addresses. One peculiar feature of the Illinois reunion was a brief biographical sketch of the graduates of each class, prepared by some member thereof. The proceedings of the two conventions are highly creditable to the intelligence and character of those who took part in them, and to the institutions through whose instrumentality their members were raised to such a plane as to be capable of conducting meetings of this kind wisely and successfully.

The Heinicke Centennial.—The present year is the hundredth

anniversary of the opening of the first public institution for the deaf and dumb in the history of the world, by Samuel Heinicke, at Leipsic, Saxony, April 13, 1778. The anniversary was celebrated by appropriate exercises at the Leipsic Institution and elsewhere in Germany. The commemoration of the occasion by the *Annals* will be the publication of Heinicke's portrait in the next number.

Elliott's Text-Books.—Just as our last pages are going to the press we receive from the author three new text-books, of which we are sorry not to be able to write a more extended notice. They are entitled: (1,) "A Course of Elementary Lessons in Written Language for the Deaf and Dumb;" 12mo, pp. 84. (2,) "A Vocabulary of 4,000 Words in Common Use, arranged in the order of difficulty in six courses, intended for use in the elementary instruction of the deaf and dumb in language;" 12mo, pp. 48. (3,) "A Course of Lessons in Articulation and Lip-Reading for Deaf Children;" 12mo, pp. 48. They are by Richard Elliott, M. A., Head-Master of the Margate Branch of the London Asylum for the Deaf and Dumb, and are published for the Asylum by Waterlow & Co., London. They are intended for the use of the Asylum in Old Kent Road and its Margate branch, but can be obtained by other institutions, if desired, at cost.

These books have evidently been prepared with much care, and are the fruit of a long and successful experience in the class-room. The author's view as to the best method of beginning the course of instruction is not the same as ours, for he begins with single words and then prefixes adjectives, instead of introducing the pupil at once to the sentence, as we should prefer. That, however, is a question upon which good teachers differ; Mr. Elliott expresses the belief that the majority of instructors agree with him in theory and practice.

The Vocabulary of Words in Common Use is judiciously chosen and arranged.

The Course of Lessons in Articulation "aims at taking the deaf child through all the sounds of the English language necessary to secure the intelligible utterance of words. These sounds are given in the sequence which it is thought will best tend to their easy acquirement," and a large vocabulary of words, with indications of their pronunciation, is added. The book seems to be well adapted to the purpose for which it is designed.

The Next Convention.—The Ninth Convention of American Instructors of the Deaf and Dumb will meet at the Institution for the Deaf and Dumb, Columbus, Ohio, on Saturday, August 17, 1878, at 3 o'clock P. M., and will continue in session through Wednesday, August 21. The following communication has been sent us for publication:

"INSTITUTION FOR THE DEAF AND DUMB,
"COLUMBUS, OHIO, *June* 6, 1878.

"*To the Editor of the Annals:*

"SIR: The present Board of Trustees has requested me to say that it cordially endorses the arrangements made by its predecessor for the holding of the next Convention of Instructors of the Deaf and Dumb at this Institution, in accordance with the call issued February 26th.

"It is suggested that specimens of school-work, drawings, paintings, series of text-books in actual use, any books, charts, or material especially designed to facilitate any department of deaf-mute education, any specimens of work and skill in handicraft and institution industries, pictures of buildings or plans, in short, anything in the line of institution life calculated to interest and instruct the members of the Convention, be forwarded to the Convention a few days before its session. Suitable arrangements will be made for the exhibition of any such articles.

"Whatever reduction, if any, can be obtained from railroad companies in the matter of fares will be announced at a later date.

"G. O. FAY,
"*Local Committee.*"

Further particulars with respect to the Convention may be found in the call of the Chairman of the Executive Committee, published in the last number of the *Annals*, page 126.

The Annals Reprint.—The first volume of the *Annals*, which for some time has been out of print, has been reprinted in a creditable manner at the New York Institution. A number of copies, proportionate to the amount of the assessments paid, will be distributed free of charge to the institutions that support the *Annals;* other copies are retained by the editor for future demand, and may be obtained, postage prepaid, at the price of $2 each. The other early volumes, now out of print, will be reprinted as rapidly as our means will allow, so that ere long, we hope, the demand for complete sets can be supplied without difficulty.

LANGUAGE LESSON

Script Type.

Designed to introduce

correct understanding

It is believed that this

for use are so manifo

with the instruction

forward their educa

as well as for use in the

to serve as a standard

ity of method, thus

injury which often

to another. By its

fully commenced at

ago it is not necessary

still, it is thought,

the pupil the habit

With this view it need not

pupils to an institution

exercises.

ECLECTIC

PRI

The Use and

By

Instructor in the

LATHAM'S FIRST L

The design of this work

pupil, and in a secondary

The scope of the lesson

confined, in the main,

profitably utilized.

or supplies for first

LATHAM'S PRIMAR

Based upon the same

viz; the gradual and

constructed; with the

or parts of language

an auxiliary in the

170 pp. Illustrated.

duction. 30 cents per

Now generally used

Dumb in

VAN ANT

CONTENTS.

PAGE.

Drawing Designs.....*By James H. Logan, M. A.* 141
Consanguineous Marriages.....*By Alfred Henry Huth* 144
The Greatest Good to the Greatest Number,
By Isaac Lewis Peet, LL. D. 151
Address Delivered on Presentation Day,
By Edward M. Gallaudet, Ph. D., LL. D. 158
The Gesture-Language.—I.....*By Edward B. Tylor* 162
Mrs. Mary B. Swan .....*By Roswell H. Kinney, M. A.* 178
In Memory of the late John R. Burnet.....*By James Nack* 180
An Interesting Case of Articulation and Lip-Reading,
By the Editor 181
The Examination of Teachers in Hanover.....*By the Editor* 185
Institution Statistics of Deaf-Mutism.....*By the Editor* 187
Institution Items: Pennsylvania, Ohio, Illinois, Wisconsin, West Virginia, Western New York, National, Halifax, Mackay, and London Institutions.....*By the Editor* 196
Miscellaneous: The Turkish Grand Vizier and his Deaf-Mute Servants; Ekbohrn's Sketch of Gallaudet; Van Praagh on Oral Education; Articulation in England; Inventions in Aid of the Deaf; Deaf-Mute Reunions; The Heinicke Centennial; Elliott's Text-Books; The Next Convention; The *Annals* Reprint..*By the Editor* 199

The American Annals of the Deaf and Dumb is a quarterly publication, appearing in the months of January, April, July, and October. Each number contains at least sixty-four pages of matter, principally original. The subscription price is two dollars a year, payable in advance. (To British subscribers nine shillings, which may be sent through the postal money-order office.) Communications relating to the *Annals* may be addressed to the Editor,

EDWARD A. FAY,
Kendall Green,
Washington, D. C.